



HENRY FORD HEALTH SYSTEM

Detroit, Michigan



2011 Malcolm Baldrige National Quality Award
Application

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GLOSSARY OF TERMS AND ABBREVIATIONS

5 Million Lives Campaign IHI-sponsored national initiative to protect patients from harm; 5M refers to goal—eliminate 5M harm events nation-wide

100K Lives Campaign IHI-sponsored national initiative to reduce mortality through implementation of evidence-based practices in hospital care

A

A&CC Audit and Compliance Committee of the BOT

ACC American College of Cardiology

ACGME Accreditation Council for Graduate Medical Education—Responsible for the accreditation of U.S. post-MD medical training programs; accomplished through a peer review process and based upon established standards and guidelines

Action Plan Collection of specific actions, resources, responsibilities, and timelines that respond to short- or long-term strategic initiatives.

ADLI Approach, deployment, learning, integration

AHA American Hospital Association

AHRQ Agency for Healthcare Research and Quality

AIP Annual Incentive Plan

ALA Advanced Leadership Academy. 18 month formal Leadership development program/cohort for individuals selected by SL as potential successors to Performance Council.

Allopathic Medical training that leads to a Doctor of Medicine degree (M.D.)

AMA American Medical Association

Ambulatory Services provided on an outpatient basis

AME Annual mandatory education

AMGA American Medical Group Association

AMI Acute Myocardial Infarction (heart attack)

AOA American Osteopathic Association—National accrediting body for osteopathic health care organizations

AOHPH Association of Occupational Health Professionals in Healthcare

AOS Available on site

APM Action Plan Monitor

Augmentation Helping labor progress by doing something to stimulate contractions.

BAA Business Associate Agreement—Requirement in the vendor policy for all vendors to follow all HIPAA guidelines

BBP/OPIM Blood-borne Pathogen/Other Potentially Infectious Material

BCBSM Blue Cross and Blue Shield of Michigan

BCN Blue Care Network

BHS Behavioral Health Services

BOB Book of Business

BOG Board of Governors

BOT Board of Trustees

BU Business Unit

Bundle Set of separate but interdependent clinical processes or practices that together drive a desired outcome

C

CA Cancer

CABG Coronary Artery Bypass Graft

CAHPS Consumer Assessment of Healthcare Providers and Systems—Member satisfaction survey used by HAP

CAP College of American Pathologists

Capitated A payment mechanism by which a health plan gives the provider a set fee per member per month (PMPM) regardless of treatment required.

Care Coordination Approaches in the process of care to ensure patients' needs are met and hand offs between care givers and settings are error free

CARF Commission on Accreditation of Rehabilitation Facilities

CarePlus Classic Original version of the EMR and associated data repository of patients' medical records

CBC Complete blood count

CC Community Care—Market segment which includes community-based and in-home services

CCs core competencies

CCS Community Care Services

CDC Center for Disease Control

CDS Corporate Data Store—A secured, comprehensive data warehouse which includes information from various clinical, revenue cycle, and business systems

CE Customer Engagement

Centers of Excellence Programs certified as Centers of Excellence by external agencies

CEO Chief Executive Officer

CEU Clinical Education Units—Education required by nurses and other Allied health professionals to maintain licensure and certification

CESC Customer Engagement Steering Committee

Champion (Safety, Engagement, etc.) Internal consultants to individual BUs. For example, engagement champions focus on employee engagement and retention initiatives. They develop and recommend department, BU and System-wide initiatives based on Engagement Survey data to drive improved engagement scores and decreased turnover as well as create tools and resources for managers to help them build and sustain a highly engaged workforce environment. Safety Champions perform a similar role focused on safety.

CHAP Community Health Accreditation Program

CHASS Community Health and Social Services Clinic (Federally Qualified Health Centers)

CHNA Community Health Needs Assessment

CHP Community Health Programs

CHRO Chief Human Resource Officer

CIO Chief Information Officer

CISC Care Innovation Steering Committee—A cross-System team focusing on innovations in prevention and chronic disease management

Clinical job function Allied health, behavioral health, clinical support, nursing, physician, research

CME Continuing Medical Education—Education required by physicians and other clinicians to maintain licensure

CMO Chief Medical Officer

CMS Centers for Medicare and Medicaid Services—Federal agency responsible for the administration of Medicare/Medicaid

CNEC Corporate Nurse Executive Council

The Code Code of Conduct—Expectations for ethical and moral behavior

COI Conflict of Interest

Community Care Patient segment for all CCS services

CON Certificate of need—State laws and programs to restrain health care facility costs and allow coordinated planning of new services and construction

COO Chief Operating Officer

Core Measures Standardized, or “core,” quality performance measures reported by The Joint Commission (TJC) accredited hospitals, aligned with measures required by CMS, and endorsed by NQF; viewed as integral to improving the quality of care provided to hospital patients and bringing value to stakeholders by focusing on evidence-based care processes for AMI, HF, pneumonia, and surgical infection prevention

COS Culture of Safety

CPM Customer Potential Management—HFHS’s customer relationship management vendor’s database

CPNG Care Plus Next Generation—significantly enhanced EMR implemented in 2011

CPOE Computerized Physician/Provider Order Entry

CPT Community Pillar Team

CQO Chief Quality Officer

Crimson Physician performance improvement software from the Health Care Advisory Board

CRM Customer relationship management—patient preference database

Crucial Conversations HFHSU class offered to leaders to improve retention and enhance conflict management

CSCM Catastrophic Senior Case Management

CSR Customer Service Representative

CTO Combined Time Off—vacation, sick and personal time

CV Cardiovascular

D

Days Cash on Hand Measures the number of days that operating expenditures are covered by cash balances

DME Durable medical equipment

DNV DNV Healthcare—a hospital accrediting agency.

DR Disaster recovery

DVT Deep Vein Thrombosis—blood clot

DVT Protocols Approaches to minimize risk of potentially fatal blood clots

E

EA Environmental assessment

EAG Employee Advisory Group

EAP Employee Assistance Program

EC Executive Cabinet

ED Emergency Department

EDS Electronic Data Systems

EEOC Equal Employment Opportunity Commission

EHS Employee Health Services

EMR Electronic Medical Record

e-Nancy Direct email access system to the HFHS CEO

EOS Employee Opinion Survey

EPA Environmental Protection Agency

ePrescribe/ePrescribing Software that allows creation and distribution of prescriptions electronically

e-Visits Structured online clinical interviews between patients and their physicians; physicians to make clinical judgments and recommend next steps/treatments

F

FCR First Call Resolution

FMEA Failure Modes and Effects Analysis—Structured method to identify, prioritize, and address potential failures in high-risk processes with the aim of preventing them

FQHC Federally Qualified Health Center

G

Gallup Q12 An evidence-based survey tool of 12 questions most highly correlated with employee satisfaction and organizational productivity

Gantz Wiley Employee Opinion Survey vendor used by HFHS prior to 2008

Governance Institute conducts research studies, tracks healthcare industry trends, and showcases governance practices of leading health care boards across the country.

H

HAP Health Alliance Plan

Harm Any unintended physical injury resulting from or contributed to by medical care (including the absence of indicated medical treatment) that requires additional monitoring, treatment or hospitalization, or that results in death. Such injury is considered harm whether or not it is considered preventable, resulted from a medical error, or occurred within a hospital.

HCAB Healthcare Advisory Board—Research organization which provides industry data and literature

HbA1c Glycosylated hemoglobin, measured in a blood test commonly used to assess blood sugar control in diabetic patients

HCAHPS Hospital Consumer Assessment of Healthcare Providers and Systems—CMS’s national inpatient satisfaction survey

HE Health Engagement

HEART Hear, Empathize, Apologize, Respond, and Thank—HFHS’s service recovery model

HEDIS Health Employer Data and Information Set—Tools used by U.S. health plans to measure performance on care and service; widely accepted as measures for ambulatory care

Henry HFHS’s intranet

HF Heart Failure

HFH Henry Ford Hospital

HFHS Henry Ford Health System

HFHS-employed physicians Physicians employed by HFHS on contract for specific clinical or administrative services

HFHSU Henry Ford Health System University

HFKH Henry Ford Kingswood Hospital

HFLS Henry Ford Leadership System

HFMC Henry Ford Medical Center(s) Fairlane (FRL) Sterling Heights (SH) West Bloomfield (WB)

HFMG Henry Ford Medical Group

HFMG physicians Members of the HFMG multi-specialty, salaried group practice, one of HFHS’s BUs

HFMH or HFMH-CT Henry Ford Macomb Hospital

HFMH-WC Henry Ford Macomb Hospital-Warren Campus

HFPPN Henry Ford Physician Network

HFWBH Henry Ford West Bloomfield Hospital

HFWH Henry Ford Wyandotte Hospital

HFWH-CHS Henry Ford Wyandotte Hospital-Center for Health Services (ambulatory site)

HHC Home Health Care

HICS Hospital Incident Command System

HIHCP HAP In-Home Care Program

HIPAA Health Insurance Portability and Accountability Act

HR Human Resources

HR Business Partner BU HR Professional whose primary job function is to work closely with leadership to analyze data and drive strategy. The role aligns HR work with BU and system strategy. HR and business data are key drivers, focusing efforts in areas such as workforce planning, retention and engagement.

HRA Health Risk Assessment

HRET Human Resources Executive Team

HRIC Human Resources Investment Center

Hyperlipidemia Hyperlipidemia is a condition where there is an elevation of lipids, or fats, in the blood. This could be due to an increase in triglycerides, cholesterol, or both. Untreated hyperlipidemia may lead to heart disease.

I

ICU Intensive Care Unit

IDP Individual Development Plan

IHI Institute for Healthcare Improvement—Not-for-profit organization leading global health care improvement

iMDSoft Software tool for tracking patient care in intensive care units

Induction Induction of labor: involves using artificial means to assist the mother in delivering her baby

INR International Normalized Ratio—Blood test to assess the effect of oral anticoagulation therapy

Integrated system management models and structures that allow for coordination of care experience for patients and their families and teamwork among care givers and employees

IOM Institute of Medicine

IP Inpatient

IPA Independent Practice Association

IRB Institutional Review Board—Approves, monitors, and reviews biomedical and behavioral research involving humans with the aim to protect the rights and welfare of the research subjects

IT Information Technology

ITDR IT disaster recovery

IVR Interactive Voice Response

J

JIT Just-in-time

Just Culture “Just Culture” policy and training is a best practice, standardized approach to manage employee behaviors toward open communication (“speak up”), safety, and high performance.

K

Keystone project State collaborative on patient safety, nationally recognized for excellence

Kirkpatrick Four levels of training results including:

1. **Reaction of student**—what they thought and felt about the training;
2. **Learning**—the resulting increase in knowledge or capacity;
3. **Behavior**—extent of behavior and capability improvement and implementation/application; and
4. **Results**—the effects on the business or environment resulting from the trainee’s performance

KW Knowledge Wall

L

LA Leadership Academy. Year-long development program/cohort for individuals identified through Talent Review process as potential successors to LEAP. Focus is on Pillars and strategic objectives

Lasting Impressions Service Excellence framework adopted by all HFHS BUs

Lean Improvement methodology focused on eliminating waste and reducing cycle time

LEAP Leadership Execution and Planning Team

Leapfrog Group Voluntary employer membership program to recognize and reward big leaps in health care safety, quality, and customer value

LOS Length of Stay—The number of days a patient stays in an inpatient facility; often used as a measure of efficiency and effectiveness

LT Long term

M

Market Measurement Vendor used by HAP to conduct telephone surveys of patients about their satisfaction with HAP physicians and networks

MC Metrics Committee

MDCH Michigan Department of Community Health

MEC Medical Executive Committee

MHA Michigan Health and Hospital Association

MI Michigan

MIOSHA Michigan Occupational Safety and Health Administration

MI-STAAR MI State Action on Avoidable Rehospitalizations

Model for Improvement HFHS approach to process design and improvement based in PDCA

Morbidity Rate Measures the incidence rate or prevalence of a disease or medical condition

Mortality Rate Measures the number of deaths in a given population

MQC Michigan Quality Council—Michigan’s Baldrige-based award program. Their Leadership Award is the highest honor given

MFI Model for Improvement

M/S or Med/Surg Medical/Surgical—Refers to patients admitted for medical and/or surgical care

MTM Medication Therapy Management

MVV Mission, Vision, Values

MyHealth Consumer Health Portal

N

NCQA National Committee on Quality Assurance—Not-for-profit organization dedicated to improving health plan quality through accreditation, certification, and recognition

NDNQI National Database of Nursing Quality Indicators

NHSC No Harm Steering Committee

NHSN National Health Safety Network (formerly NNIS)

NIH National Institutes of Health

NIMS National Incident Management System

NLA New Leaders Academy. Formal leadership development program/cohort for all new leaders based on promotion/hire. 40 hours classroom and 20 hours online training in the first 6 months. Focus is on HFHS Leadership Competencies.

Non-clinical job functions Admin. support, business, facility/security/support services, information technology, leadership/management, vision center

NQF National Quality Forum—non-profit organization to develop and implement a national strategy for health care quality measurement and reporting

NRC National Research Corporation

NSQIP National Surgical Quality Improvement Program, a national collaborative focusing on reducing surgical mortality and complications

O

OASIS Outcomes and Assessment Information Set—National database of quality indicators for home health care

OB Obstetrics

OMB Circular A133 Office of Management and Budget audit of federal research awards

OP Outpatient

OPR Organizational Performance Review

OR Operating Room

OSHA Occupational Safety and Health Administration

Osteopathic Medical training that leads to a Doctor of Osteopathy degree (D.O.)

OWD Office of Workforce Diversity

P

PC Performance Council

PCP Primary Care Physician/Provider

PCTC Patient Centered Team Care

Performance Measures Metric used to quantify performance

Performance Targets Short- and long-term goals based on projected performance

PDCA Plan Do Check Act (improvement cycle); HFHS adds a “debrief” step (PDCAd)

PG Press Ganey: Supplier of patient and physician satisfaction surveys, research, and improvement tools

PI Performance Improvement

Pillars, The pillars The 7 pillar strategic framework

PLI Physician Leadership Institute

PMP Performance Management Process

PN Pneumonia

Post-Acute Ambulatory

Premier Membership organization of not-for-profit health care organizations; serves as HFHS’s Group Purchasing Organization

Press Ganey (PG) Supplier of patient and physician satisfaction surveys, research, and improvement tools

Private-Practice Physicians Independent physicians who have practice privileges at HFHS community hospitals

Q

QA Quality Assurance

Quality Expo Annual week-long improvement project exhibit and live team presentations

R

RadicaLogic (RL) On-line patient/stakeholder risk and feedback reporting and tracking system

R&E Research & Education

Revenue Cycle Systems Inpatient and outpatient registration, scheduling, real-time eligibility verification, charge capture, and billing systems

S

SC System Communications

SCIP Surgical care improvement program

SCM Supply Chain Management

SE Service Excellence

SEM (SE MI or SE) Southeast Michigan—Includes the three counties of HFHS’s primary service area (Wayne, Oakland, and Macomb) as well as Livingston, Washtenaw, St. Clair, and Monroe counties

Sentinel Event Defined by the Joint Commission (TJC) as any unanticipated event in a healthcare setting resulting in death or serious physical or psychological injury to a patient or patients, not related to the natural course of the patient’s illness.

SESF System Employee Safety Forum

Sg2 Health care membership organization, providing clinical and technology research and consulting

SHC Self-Health Coach

SI Strategic Initiative—A project designed to achieve our strategic objectives and related goals/targets

Six Clinic Group Group of large, employed physician practices across the U.S. who share research and process improvements—HFHS is a member

Six Sigma Improvement methodology and an associated set of tools to reduce variability and eliminate defects

SL Senior Leadership

SMART Specific, measurable, attainable, relevant, time-bound

SO Strategic Objective—Projected future state of the organization resulting from implementation of strategic initiatives

SPP Strategic Planning Process

SQF System Quality Forum—The Quality/Safety Pillar Team

ST Short term

Strategic Advantage A significant aspect of the operation that is done exceedingly well. Advantages that we have that make it easier to succeed.

Strategic Challenge A weakness or inadequacy in a major activity or resource that reduces the organization’s ability to achieve its strategic objectives. Factor that makes it harder to succeed.

SWOT Strengths, Weaknesses, Opportunities, and Threats

System The Henry Ford Health System

System Integration Linking services together to provide coordinated experiences for patients

System Net Income Operating gain including investments for the whole System

System Operating Net Income Operating gain (does not include investments) for the whole System

T

TAT Turn-around-time

TB Tuberculosis

Team Member Standards The Team Member Standards of Excellence (P.1a(2)) which apply to all employed staff and leaders

THFE The Henry Ford Experience

Thomson Reuters An international company specializing in information and decision support tools for healthcare

TJC The Joint Commission—National accrediting body for many different types of health care organizations

Trainees Those in physician training programs at HFHS at all levels, including students, residents, and fellows.

Tri-county Area Wayne, Oakland, and Macomb counties in SEM

TS Talent Selection

U

UAT User-acceptance testing

V

VAP Ventilator Associated Pneumonia

VATs Value Analysis Teams—Teams of operational leaders who work with Supply Chain Management to address supply costs through standardization and innovation

VOC Voice of the Customer

Vodcast Video communication available to all workforce members via Henry

W

WHO World Health Organization

WPM Work Process Measures

WSU Wayne State University

P.1 Organizational Description

A century ago, pioneer automaker Henry Ford recognized the need for health care for the growing city of Detroit. He brought to health care the same drive that made him a visionary leader in transportation. He committed to building Henry Ford Hospital (HFH) in the heart of Detroit, staffed with employed physicians (later the Henry Ford Medical Group (HFMG)), to serve the average person. He encouraged research and professional education, creating a tradition of innovation and learning that continues today.

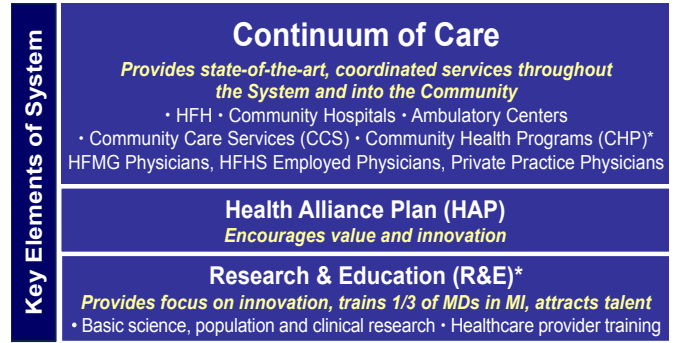
Our history is one of overcoming great obstacles while never wavering in our commitment to our community. With financial losses due to unreimbursed care, and suburban patients unwilling to go downtown, HFH and HFMG could have left Detroit for the suburbs. Instead, we committed to Detroit by creating partnerships with the city and adding ambulatory centers in the suburbs. Today, although Detroit faces one of the worst economies in the U.S. with nearly half its children living in poverty, Henry Ford Health System (HFHS) remains committed to Detroit while serving all Southeast Michigan (SEM), over 4.7M residents in 2010.

Fragmented, high-cost service delivery is a well-known failing of U.S. health care, yet HFHS has long focused on integrating services. Early leaders recognized that patients and families need services linked together to ensure coordinated, high-quality, safe, personal care. From HFH’s opening in 1915, we integrated inpatient (IP) and outpatient (OP) departments under one innovative management structure. As we grew, we continued to lead the industry in spreading and advancing models to integrate care delivery. We were early adopters of electronic medical records (EMR), an essential tool for coordinating care. To integrate financing and delivery, we added a health insurance plan (Health Alliance Plan, HAP) that encourages low-cost and high-quality care. Today, HFHS is one of the nation’s leading comprehensive, integrated health systems, with a full spectrum of services.

HFHS supports research and education to ensure discovery and delivery of state-of-the-art care, contribute to the well-being of our communities, attract talent, and through innovation and knowledge sharing, set an example of leadership for the health care industry. We rank in the top 6% of institutions granted funding by the National Institutes of Health (NIH). Integration of patient care with research, education, community health, and insurance offers significant competitive advantages. HFHS has received numerous awards and recognitions for contributions to SEM and the U.S. that exemplify the ongoing Ford traditions of innovation, excellence, and learning (Fig. 7.4-2).

P.1a(1) Service Offerings. HFHS is a not-for-profit integrated health care delivery and insurance system (Fig. P.1-1). We offer services across the care continuum through nine business units (BUs) with a diverse network of facilities (Fig. P.1-2). Our key customer groups and associated health care service delivery mechanisms include:

Fig. P.1-1: HFHS Integrated System



*Community Health Programs and Research & Education are cross-business unit programs managed through the Community and R&E Pillar infrastructure

Fig. P.1-2: HFHS BUs, Services, and Delivery Mechanisms

BUSINESS UNIT*	% REV	% EMPL	SERVICES
Henry Ford Hospital (HFH) (802 beds)	18	25	Same as community hospitals (below) plus level 1 trauma, certified centers of excellence in Oncology, Transplant, Trauma, and Stroke
Henry Ford Macomb Hospital (HFMH) (349 beds)	8	12	Community hospitals provide acute IP and hospital-based OP services, including emergency, ambulatory surgery, and diagnostic services plus both on- and off-site employed practice OP services, behavioral health services (at many), prevention, and wellness
Henry Ford Macomb Hospital—Warren Campus (HFMH-WC) (203 beds)	2	4	
Henry Ford Wyandotte Hospital (HFWH) (379 beds)	6	10	
Henry Ford West Bloomfield Hospital (HFWBH) (191 beds)	4	7	
Henry Ford Medical Group (HFMG) 41 specialties, 30 ambulatory centers	15	21	Preventive care, primary care, specialty care, senior care management, four centers of excellence
Behavioral Health Services (BHS) (150 beds; 7 clinics—behavioral health only)	1	2	Comprehensive psychiatric and psychological services for adults and children, including psychiatric hospital and IP/OP addiction medicine
Community Care Services (CCS)	6	10	Dialysis; in-home, nursing home, and hospice care; retail services to support care across all life stages and health levels
Health Alliance Plan (HAP)	39	4	Insurance products, including HMO, PPO, consumer-driven health plans

*Relative importance is indicated by net % revenue and % employees. Though not technically a BU, Corporate Services accounts for 4% of employees and, where appropriate, is represented in data segmented by BU.

- **Patients.** Service is delivered through direct collaboration with our clinicians and multi-disciplinary teams, hospital stays, ambulatory and home visits, and educational programs. Our online interactions with patients include e-visits, results reporting through health information portals, and online appointment scheduling and prescription renewals (3.2a(2)).
- **Community.** Service is delivered through interactions in our facilities, our Web site, print media, and educational TV, and programs at community locations, often delivered jointly with partners or collaborators. We contribute to community health care service delivery through community leadership, collaborative arrangements, and funding, especially for the un- and under-insured (1.2c(1,2), Figs. 7.5-4, 7.4-8).
- **Purchasers.** Service is delivered through HAP’s health insurance products for individuals and employers, which offer coverage for health-promotion and disease-management

services, delivered in our facilities, the workplace, online, by telephone, and in print media.

P.1a(2) Vision and Values. We are driven by a passion for excellence and a pervasive “can-do” spirit. Our culture, characterized by our focus on clinical excellence, community commitment, System integration, and efficient business practices, aligns to and supports our mission, vision, and values (MVV, Fig. P.1-3), which set the direction for the System and serve as the basis for strategic planning and management of operations (1.1a(1), 2.1a(1)). Our culture pulls together our wide range of resources and services to create what we call The Henry Ford Experience (THFE).

Fig. P.1-3: HFHS Mission, Vision, and Values

MISSION: To improve human life through excellence in the science and art of health care and healing.
VISION: Transforming lives and communities through health and wellness—one person at a time
VALUES: We serve our patients and our community through our actions that always demonstrate: Each Patient First, Respect for People, High Performance, Learning and Continuous Improvement, and a Social Conscience

Our values drive the decision making and personal behavior of leaders and the workforce (1.1a(2)). To reinforce living our values, senior leaders developed the HFHS **Team Member Standards**, which pertain to everyone in the workforce: *Display a positive attitude; Take ownership and be accountable; Respond in a timely manner; Commit to team members; Be courteous and practice established etiquette; Respect patient privacy; Foster and support innovation; and Honor and respect diversity.* Our core competencies (CCs) are fundamental contributors to our success in fulfilling our mission and differentiating HFHS in our marketplace (Fig. P.1-4).

Fig. P.1-4: HFHS Core Competencies

INNOVATION: Expertise in discovering and applying new knowledge, from new clinical techniques and technologies to anticipating and making improvements in processes, products, services, and organizational structures
CARE COORDINATION: Proficiency in providing coordinated care across the continuum of providers and delivery sites, enhanced by a multidisciplinary team approach and information technology
COLLABORATION/PARTNERING: Relationship-building, collaboration, and partnerships with patients, key stakeholders, and others

Among many examples, the following illustrate how we leverage our CCs to achieve the excellence that enables us to dramatically improve human lives:

- Aligned with our top priority of reducing harm (1.1a(3)), HFH served as one of the first “mentor” hospitals and contributing inventor in a national harm reduction campaign. The HFHS No Harm Campaign model was recently tapped to contribute to the new Health & Human Services Partnering for Patient Safety campaign. (*Innovation, Collaboration/partnering*)
- HFMG physicians performed the first robotic removal of a cancerous prostate gland in the U.S., an innovation that revolutionized prostate cancer treatment globally; today five surgical specialties have expanded into the robotics field, and HFMG is recognized for its widespread expertise in minimally invasive surgery. (*Innovation, Care coordination*)
- HFHS opened HFWBH in 2009, an innovative hospital with a wellness focus, designed with substantial input from

patients, families, the community, and caregivers. (*Innovation, Care coordination, Collaboration/partnering*)

P.1a(3) Workforce Profile. Our workforce numbers more than 31,000 with 76% HFHS employees. Fig. P.1-5 shows the diversity of our employed workforce, which reflects the communities we serve. In specific areas, contract employees, mainly from our key suppliers and partners, work alongside HFHS employees; they comprise about 7% of the workforce. Small bargaining units represent just over 2% of employees.

Fig. P.1-5: Workforce Diversity

JOB FUNCTION	Leadership/management–6%	Non-management–94%
FUNCTION	Clinical–67%	Non-clinical–33%
GENDER	Female–78%	Male–22%
RACE/ETHNICITY	African American–22%	Asian/Pacific Is–8%
	Caucasian–68%	Hispanic–2%
	Other–1%	
AGE	<25–4%	25–34–22%
	35–44–25%	45–54–28%
	55–64–19%	>65–3%
TENURE	<5 yrs service–40%	>55 with 5+ yrs service–18%

Physicians (including those in training) comprise 17% of the workforce. More than 1,350 salaried HFMG physicians staff HFH and 30 ambulatory centers. More than 2,200 private-practice physicians serve on community-hospital medical staffs and refer patients to HFMG. A small number of HFHS-employed physicians provide clinical and administrative services on contract. We have more than 1,500 physicians in training annually. Some 2,000 volunteers, about 6% of the workforce, perform customer-service or administrative tasks. Workforce education levels range from high school to doctoral level, with years of advanced training for clinicians, researchers, and administrative staff, consistent with their job functions and professional interests. Fig. P.1-6 shows key elements affecting workforce engagement (5.2a(1)). Drivers for employees and volunteers are based on the Gallup Q12.

Fig. P.1-6: Elements Driving Workforce Engagement

GROUP/SEGMENT	ENGAGEMENT DRIVERS
Employees (leadership/mgt, clinical, non-clinical)	Q1. Know what is expected of me Q2. Have materials and equipment needed Q3. Do what I do best every day Q4. Recognition in last 7 days Q5. Supervisor/someone at work cares about me Q6. Someone at work encourages my development Q7. At work, my opinions seem to count Q8. Mission/purpose makes me feel important Q9. Coworkers committed to quality Q10. Have a best friend at work Q11. Reviewed my progress in last 6 months Q12. Opportunities to learn and grow this year
Physicians (HFMG, HFHS-employed, private-practice, trainee)	Quality of care I/HFHS deliver Leadership and communication Time spent working, my productivity Academic mission of HFHS Community reputation of HFHS
Volunteers	Same as Q1, Q3, Q4, Q9, Q10

All workforce members require a healthy, safe, and secure work environment. Our approaches to address these requirements include System-wide programs and activities targeting risks in particular settings, such as exposure to diseases, blood and body fluids, hazardous materials, and other workplace safety concerns. (5.1b(1)). Our services, policies, and benefits are designed with employee input and tailored to diverse needs (5.1b(2)).

P.1a(4) Assets. HFHS facilities have the equipment and technologies required for excellent care in a wide array of settings and for virtually all medical and surgical conditions, with many leading-edge approaches to diagnosis and treatment. State-of-the-art equipment and technologies include, for example, inter-operative magnetic resonance imaging for delicate operative procedures. Our facilities, equipment, and technologies also support and enhance our research and education programs. More than 150 medical specialists and research scientists are engaged in several hundred research projects. Our Center for Simulation, Education, and Research, with computers and mannequins simulating hundreds of clinical scenarios, has enabled more than 12,000 participants to develop skills and try out new approaches in a risk-free environment (5.2c(1)).

Clinical information is linked across all our facilities through CarePlus Next Generation (CPNG), a longitudinal EMR, with a portal for private-practice physicians (4.2a(2)). Additional IT systems supplement CPNG, including an ICU information system, electronic medication administration system, and clinical information systems for obstetrics, cardiac care, transplantation, chronic disease, specialized data repositories, and patient care tools. Business management tools support patient scheduling, registration, billing, marketing, planning, quality, and research. Our System dashboard provides for timely distribution and monitoring of key performance measures and strategic initiatives (SIs). IP and OP data are stored in Corporate Data Store (CDS) and can be accessed through query tools (4.2a(2)).

P.1a(5) Regulatory Requirements. HFHS is subject to and meets all federal, state, and local laws, regulations, and applicable health care accreditation and research standards designed to protect and promote health care quality and safety and ensure that patients and employees receive fair and equal treatment. Michigan is a Certificate of Need state; capital expenditures exceeding \$2.9 million and changes in hospital beds and other specified clinical services require state approval.

P.1b(1) Organizational Structure. The 24-member System Board of Trustees (BOT) is responsible for ensuring and overseeing our mission, finances, strategic planning, and potential acquisitions and mergers. The BOT maintains certain reserved powers for HFHS (the System), including fiduciary responsibility for all hospitals and other entities. BU affiliate and advisory boards provide guidance to BU leaders and local community stakeholder perspectives. Boards communicate with the BOT through quarterly meetings of board chairs. The HAP Board of Directors oversees the health plan.

The HFHS senior leadership (SL) team is called the Performance Council (PC). The PC includes the Executive Cabinet (EC, comprised of the System CEO, COO, CMO, CFO, and HAP CEO) plus all BU CEOs and senior corporate leaders. The PC is responsible for strategy development and implementation, organizational performance review (OPR), and oversight for HFHS's performance improvement (PI). Other key leadership groups include pillar, System, strategic initiative (SI), and BU teams. These teams also participate in the strategic planning process (SPP), contributing to SI and ac-

tion plan development and implementation (2.2a(2)), OPRs (4.1b), and PI (4.1c). SL provides opportunities for strategy input and two-way communication through the Leadership Execution and Planning (LEAP) team, which includes the PC plus HFHS vice presidents and directors; 45% are physicians. The HFMG Board of Governors (BOG) provides oversight to HFMG physicians. The System CMO is a BOG member. An elected medical executive committee (MEC) oversees clinical practices at each community hospital. The BOG and MECs are accountable to local boards and the System BOT. In 2010, anticipating health care reform legislation and leveraging the longstanding cooperation among our physicians, we formed the Henry Ford Physician Network (HFPN), a physician-driven organization comprised of HFMG, HFHS-employed, and private-practice physicians. The HFPN strategy includes standardizing care based on leading practice; using technology to share clinical data and improve care coordination and continuity; establishing uniform performance expectations, metrics, targets, and thresholds; and developing common goals and reward structures. A 15-member board of trustees, with HFMG and private-practice physician representatives, reports to the System BOT. Results are anticipated by year end for this new venture.

P.1b(2) Customers and Stakeholders. Patients, community, and purchasers comprise our customers and key stakeholders. Fig. P.1-7 shows each group and key segments, and their key requirements. Our community includes the SEM tri-county area (Wayne, Oakland, and Macomb counties), where our facilities are located and 95% of our patients reside. We segment community results by hospital service area. Patients have private (including HAP), public, or no insurance, and HAP members are not required to seek their care from the HFHS delivery system. HAP purchasers include both individuals and companies seeking to manage costs while keeping employees and beneficiaries—from fewer than 10 to tens of thousands—healthy and happy. To better understand and address their requirements, we involve patients and stakeholders in our design and improvement/innovation processes (Fig P.1-8, 6.2a(1)).

Fig. P.1-7: Key Patient / Stakeholder Requirements

HFHS PATIENTS (IP, OP, ED, CCS)	Safe, reliable care Timely and efficient care Effective, evidence-based care Patient-centered care Equitable care
COMMUNITY (Hospital service areas in Wayne, Oakland, Macomb counties)	Healthier citizens, healthier communities Equitable health care and access, especially for the un- and under-insured Financial benefit
PURCHASERS (employers, individuals)	Timely and efficient (cost-effective) care Effective, evidence-based care Access to high-quality providers

P.1b(3) Suppliers and Partners. HFHS builds relationships with suppliers, partners, and collaborators. They contribute to our key work systems and processes (Fig. 6.1-1), supporting our capacity to achieve strategic objectives (SOs). Their roles and mechanisms are outlined in Fig. P.1-8. Our most important supply chain requirements are value, safety, availability/timeliness, reliability, and innovation. In addition, we are committed to supplier diversity (Fig. 7.4-13).

Fig. P.1-8: Suppliers, Partners, Collaborators, & Roles

REPRESENTATIVE TYPES	ROLE IN DELIVERY OF SERVICES & SUPPORT	ROLE IN INNOVATION	RELATIONSHIP & COMMUNICATION MECHANISMS
SUPPLIERS			
Major suppliers (e.g., Aramark for food services)	Deliver essential services outside scope of HFHS's business expertise	New products/services, expertise in their business area	<ul style="list-style-type: none"> • Contracting process, electronic data exchange • Quarterly meetings with key suppliers where they report against quality, cost & customer satisfaction metrics • Vendor orientation/educational meetings • HFHS participation on suppliers' Boards/Committees • Participation in strategic planning
Local & minority (diverse) suppliers	Deliver products & services while enabling HFHS to contribute to regional economy, support diversity		
PARTNERS			
Continuum of Care Community partners (e.g., CHASS clinics, two federally qualified health centers, 1.2c(2))	Partner on delivery strategies, methods, locations for primary care services, wellness, housing	Unique approaches for delivering higher-quality, lower-cost care within the community	<ul style="list-style-type: none"> • Participation on leadership & quality improvement teams • Representation on advisory boards & board committees • Participation in strategic planning • Participation in joint task forces • HFMG faculty appointments • Joint research programs
Strategically sourced vendors (e.g., Siemens, 4.2b(1))	Provide on-site staff, support 24/7 availability of clinical technology & information systems, assist with design & improvement of clinical technologies	Expertise & leading-edge technology	
Research & Education Educational institutions (e.g., WSU, 1.2c(1))	Provide physicians in training; HFH serves as clinical campus	Ideas, expertise, cutting-edge technology used in breakthrough ways	
Health Plan Employer-purchasers (e.g., Detroit automakers, 6.1b(2))	Partner on delivery strategies, methods, locations for beneficiaries	Ideas, funding, & strategic oversight for methods to improve access & convenience, lower cost	
COLLABORATORS			
Continuum of Care Health care coalitions (e.g., IHI, MHA, 6.2a(4))	Participate in process & quality improvement	Expertise, knowledge of stakeholders	<ul style="list-style-type: none"> • HFHS participation in collaborators' boards/committees • HFHS participation in quality improvement efforts • Collaborators' participation in HFHS quality/process improvement activities
Patients (e.g., patient advisory councils, 3.1a(1), 3.2a(1))		Provide input, serve on teams	
Health Plan Employer-purchasers (e.g., Detroit automakers)		Collaborate to ensure affordable, effective care for their workforce	

P.2 Organizational Situation

P.2a(1) Competitive Position. HFHS competes in many services across the continuum of care with large health systems and smaller, independent hospitals and health providers. Currently, HFHS holds 17.5% IP market share in the tri-county area and 15.4% in all SEM. HFHS's 2.1 million ambulatory patient visits represent about 19% of tri-county OP market share. Our four major competitors currently hold 10.5-17.5% of IP market share in the tri-county area, with the remaining 24% split among several independent providers. HAP's statewide market share is 22.4% for HMO products and 5.4% for commercial products. CCS's Home Health Care (HHC) is Michigan's largest home health provider. Because of its diverse array of services, CCS has many different state and local competitors.

P.2a(2) Competitiveness Changes. The SEM economy, national health care reform, and the entrance of for-profit ownership are key competitive changes that create challenges and opportunities for HFHS. With our "can-do spirit" and using our CCs, we are leveraging partnerships (1.2c, 5.1a(2)) and maintaining focus on our SOs to drive differentiation and sustainable success.

P.2a(3) Comparative Data. HFHS uses comparative and competitive data sources common to the industry and aligned with the pillars (Fig. P.2-2). **People:** AMGA, CDC, Gallup, Gantz-Wiley, HRIC, Saratoga; **Service:** CAHPS, HCAHPS, JD Power, NRC, Press Ganey (PG); **Quality & Safety:**

AHRQ, BCBS, CMS, Crimson, EDS, FCR, HCAB, HE-DIS, IHI, MHA, MIOSHA, NDNQI, NHSN, TJC; **Growth:** AMGA, MHA, MIDB, Premier, SEM Data Exchange; **Research & Education:** ACGME, NIH; **Community:** Governance Institute, MDCH website; **Finance:** Moody's, Premier, S&P, competitor financials. In addition, many departments compare results to outcome and process data shared within their industry segment or published by relevant professional organizations. Key limitations include limited availability of relevant benchmarks for large, integrated health systems; lack of standard definitions and databases for many clinical measures; and long delays in data availability, with many key reporting sources lagging by 3 to 18 months.

P.2b Strategic Context. Fig. P.2-1 outlines our strategic challenges and advantages.

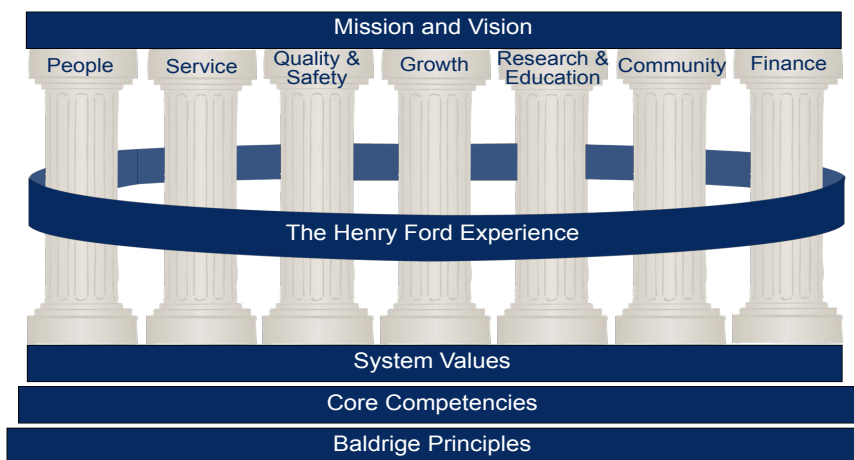
P.2c Performance Improvement System. Through the Henry Ford Leadership System (HFLS, Fig. 1.1-1), our leaders set the direction for performance excellence and model how to achieve it. They set visionary goals, with bold performance targets; communicate expectations and engage the workforce; monitor performance and analyze results to learn; recognize and reward high performance; and take action to drive improvement and spread best practices. A focus on excellence, learning, and innovation is embedded in our culture and continually reinforced through systematic approaches that are integrated into our HFLS and comprise the key elements of our PI system.

Fig. P.2-1: Strategic Challenges and Advantages

CHALLENGES
SC1: Accelerating pressures requiring cost control, revenue growth and diversification.
SC2: Growing transparency of results and aligning physicians to drive accountability for improvement.
SC3: Potential increased competition due to possible mergers and acquisitions.
SC4: Increased publicly available information and the effect on consumer decision-making.
SC5: Redesigning care to maximize health and effective outcomes while reducing costs.
SC6: Addressing health care needs of our diverse population including the un- and underinsured.
SC7: Retaining, training and engaging an effective, collaborative workforce and developing leaders.
ADVANTAGES
SA1 “Can Do” Spirit: a focus on workforce engagement, talent development, and recognition creates unique energy and a “can do” culture to continuously improve the quality and safety of our services.
SA2 Strategic geographic positioning: HFHS’s provider and insurance representation in all SEM regions, growing into other MI markets, is fundamental to the integration model and growth.
SA3 Long-term presence in and support of our communities: HFHS has been an active community member in Detroit since 1915 while also creating relationships and facilities in each of our suburbs.
SA4 Commitment to diversity and equity: HFHS is located in a highly diverse community and this commitment creates a desirable environment in which to work and receive care.
SA5 System Integration: a vast continuum of services, unique in healthcare, provides a means of achieving success across all seven performance pillars.
SA6 Academic Mission: our extensive clinical training and research programs attract physicians and allied professionals to HFHS from around the globe.

- **7-pillar framework.** We use a 7-pillar framework (Fig. P.2-2) to organize and evaluate our performance. The 7 pillars represent the areas most important to our success: People, Service, Quality & Safety, Growth, Research & Education, Community, and Finance. The framework aligns System SOs, SIs, and related performance measures and targets for the System and within BUs, from the top of the organization to the individual employee. System pillar teams evaluate and address progress within each pillar, while the PC sets priorities, evaluates progress, and coordinates improvement action across pillars (P.1b(1)).
- **OPR and metrics.** System-wide, leaders and managers at all levels engage in systematic, fact-based OPR (4.1b), supported by a cascading system of organizational performance measures, work process measures, and action plan monitors

Fig. P.2-2: The 7 Pillar Strategic Framework



(Fig. 4.1-2). The purpose of OPRs is organizational learning. OPRs serve as the foundation for our approaches to identify best practices to be shared, project and address future performance, and recognize opportunities for improvement and innovation (4.1c(1-3), 6.2a(4)).

- **Dashboards and Knowledge Wall.** We make performance data and demonstrated best practices readily accessible to the workforce to support organizational decision-making and drive improvement and innovation at all levels (Fig. 4.2-2). Information-sharing methods include online dashboards (Fig. 2.1-3, 4.1b) and our Knowledge Wall (KW), which captures and shares internal and external best practices (4.2a(3)).
- **Baldrige assessment.** We have used the Baldrige criteria since 2007 for annual assessment of key leadership and management processes, analyzed our feedback, and set priorities to drive major improvements. Examples include improvements to the HFLS, SPP, OPR, dashboarding, and leadership development. Throughout the year, we benchmark our processes and results against Baldrige recipients to learn and improve. The Baldrige criteria are the foundation for the multidimensional excellence represented in our 7-pillar framework and are reflected in our Leadership Competencies (5.2a(3)), which drive leader development and evaluation.
- **Model for Improvement (MFI).** Deployed System-wide, our MFI is a flexible, PDCA-based methodology adapted from IHI’s widely used approach (Fig. 6.1-2), with a companion toolkit of methods and tools appropriate for a wide range of change initiatives from informal work-unit improvement projects to innovative breakthrough design and redesign.
- **Innovation teams.** We encourage and invest in opportunities for our workforce to develop and test new ideas and approaches, with oversight by senior leaders and often their active involvement as preceptors. Examples include the Simulation Center (5.2.c(1)), where clinicians can practice techniques in a safe environment; our leadership academies (5.2c(1)), where high-potential leaders conduct innovative projects (5.2c(1)); and “innovation units,” where teams develop and pilot new approaches, often supported by specially trained internal experts, or participate in care design teams that include patients. Innovation teams also include the many national and state partnerships and collaboratives in which we develop and test new ideas and benchmark with high-performers, such as IHI’s 100K and 5M Lives campaigns and MHA’s Keystone project.

*Note: Throughout category 7, the symbol * indicates a result in text only, not in graphic. This symbol helps the reader find results. For example, Bond Rating is covered in text in 7.5a(1) and appears as follows: *Bond Rating. These results may be referenced in process categories by the criteria section they appear in, so rather than a figure number, 7.5a(1)* would be used to reference the results.*

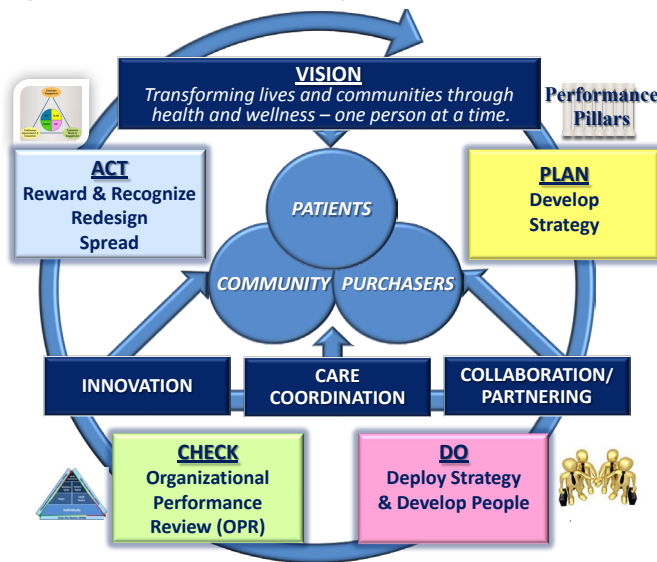
1.1 Senior Leadership

1.1a(1) Vision and Values. The PC sets our MVV during the annual SPP, **Step 1** (Fig. 2.1-1). In 2010, the PC decided to update our vision to reflect our evolving aspirations and strategic challenges. A Vision Subteam created a comprehensive listening and design process that included focus groups with all employee segments, employed and private/contracted physicians, patients, community leaders, purchasers and trustees. Based on this input, the team created three draft vision statements which were voted on by the workforce and trustees. The resulting vision statement was approved by the BOT (Fig. P.1-3).

SL deploys the MVV through our Leadership System (HFLS, Fig. 1.1-1) to all BUs and workforce segments, key suppliers and partners, and other stakeholders as appropriate. HFLS follows PDCA, reflecting our longstanding commitment to performance improvement. The PC sets aggressive SOs and SIs for all 7 pillars during **Steps 2-5** of our SPP. SL deploys strategy through action plan implementation (SPP, **Steps 5-7**) and data-driven management decisions. We develop people to ensure our workforce has skills to accomplish our SOs and deliver THFE. The Leadership Competencies (5.2a(3)) and Team Member Standards (P.1a(2)) set and implement behavioral expectations to deploy our values. OPRs occur at regular intervals throughout the System using dashboards (4.1b) to monitor and improve performance. Formal and informal use of the HFHS MFI and knowledge-sharing approaches (4.2a(3)) ensure improvement in operations. We reward and recognize individuals and teams (1.1b(1), 5.2a(3)) whose work exemplifies and contributes to the MVV. We leverage our CCs to achieve excellence. HFLS aligns the workforce to achieve the HFHS Vision. SL refines the HFLS based on our Baldrige feedback, using our approaches to improvement.

To demonstrate their personal commitment to our values and THFE, SL members model these values to all stakeholders through simple but consistent daily actions, such as asking what patients want and need when evaluating strategies and process changes (vision); rounding to hear directly from

Fig. 1.1-1: HFHS Leadership System (HFLS)



staff their ideas for innovations and improvements (respect); personally leading process improvement teams (learning and continuous improvement); and actively leading and serving on community health initiatives (social conscience, 1.2c(2)).

1.1a(2) Promoting Legal and Ethical Behavior. SL personally promotes an environment that fosters, requires, and results in legal and ethical behavior through: 1) role modeling for employees, suppliers, and partners; 2) communicating with openness, honesty, and transparency in all compliance matters; 3) deliberate culture building (5.2a(2)); and 4) deploying the Code of Conduct (the Code) internally to all BU and sites and with vendors (1.2b(2)). Our CEO deploys the Code with personal messages on video and in writing. SL cascades the Code to the workforce and other key stakeholders through multiple, comprehensive communications (Fig. 1.1-2). The HFHS CEO and CMO personally participate in evaluating and improving the Conflict of Interest (COI) process. CEOs, BU leaders, and the Board's Audit & Compliance Committee (A&CC) analyze annual disclosure results and take actions as needed to ensure compliance with the Code (Fig. 7.4-4).

Our CEO leads HFHS's process to establish, deploy, evaluate, and improve our ethical and legal standards. One example is our Vendor Compliance Policy, which specifies vendor requirements for staff interaction and mandatory participation in an orientation on the Code, MVV, THFE, and other HFHS policies. The Policy eliminates inappropriate influence and enhances patient safety by controlling vendor access to patient care areas. SL initiated annual "influence free" days during which employees turn in items with vendor logos. Holiday communications remind employees that vendor gifts cannot be accepted.

1.1a(3) Creating a Sustainable Organization. SL uses and improves our HFLS to create a sustainable organization. Senior leaders participate in creating a culture that fosters sustainability through their personal actions. To ensure long-term sustainability, the PC launched an Enterprise Risk Council (ERC) in 2010. Led by the CFO, this team is responsible for designing and executing a robust enterprise risk management program. The ERC identifies and prioritizes the top strategic, financial, and operational risks facing HFHS and ensures that the highest-priority risks are addressed through new or existing SIs.

- **Creating an environment for performance improvement.** SL leads and participates in System and pillar teams, driving performance across pillars, using the MFI, with an emphasis on accountability for SO and SI results through dashboards and OPRs. For example, our CEO and Chief Quality Officer (CQO) co-lead the System Quality Forum (SQF, including senior leaders from all BUs) and oversee the quality pillar, and our CMO leads the Care Innovation Steering Committee (CISC), which researches, designs, and spreads new care delivery innovations such as depression screening in primary care and in-home physician visits for high-risk seniors. SL also models our CCs. For example, our CEO is personally committed to improving family-caregiver communications and partnered with a deceased patient's family to create a program to improve these communications. Four members of SL personally partner with Wayne

State University (WSU) on an Innovation Institute. At our newest hospital HFVBH, we built a demonstration kitchen to engage our community in cooking and eating healthier. To ensure performance leadership, SL volunteers to lead national, state, and local initiatives to create innovations. This practice allows early adoption of practices, personal leadership skill development, and reinforces our CCs. SL ensures agility by exercising their personal skills for customer listening, improvement and innovation. For example, the CCS CEO visits our pharmacy partners, interviews customers about their service experience, and uses this information in CCS efforts to improve patient experiences (Fig. 7.2-14).

- **Workforce culture.** SL regularly rounds on all shifts at hospitals and OP sites to gather feedback from front-line staff. SL demonstrates its commitment by taking prompt action on issues and by providing two-way communication, such as e-Nancy, for all workforce segments. SL demonstrates the importance of service by: framing, modeling and teaching THFE; hiring service experts outside health care (the HFVBH hospital CEO and HFHS VP of service are former Ritz Carlton executives); driving rigor around review and improvement of patient evaluations and measures; patient rounding; personal interactions with patients and families; and patient and community involvement in process design teams and HFHS boards and committees.
- **Organizational and workforce learning.** SL models the importance of personal and organizational learning. They receive the first training for high priority SIs and participate in teaching others. SL actively participates in learning organizations, such as the IHI, Sg2, AMGA, the Six Clinic Group, and Healthcare Advisory Board (HCAB). SL leads and participates in organizational learning from OPRs at PC, pillar teams, and BU teams, and oversees cascading OPRs throughout the organization.
- **Enhance SL leadership skills.** SL participates in numerous developmental opportunities including membership in professional organizations and think tanks, hosting of and attendance at national symposiums and events featuring experts inside and outside health care, and visits with companies recognized for best practices. SL personally leads the Baldrige process, and several are trained examiners.
- **Succession planning, leader development.** We have systematic approaches to succession planning and leader development (5.2c(1), 5.2c(3)). The succession planning process begins with SL identifying individual successors for the top 13 leaders in three categories: ready now, ready in two years, and ready within five years. Identified high-potential leaders work with the Chief Human Resource Officer (CHRO) to create individual development plans (IDPs) to assist them in reaching the next level. SL selects an additional talent pool of 50 individuals who participate in the Advanced Leadership Academy (ALA) to prepare for other leadership positions. PC members discuss progress and development of potential successors during annual SL Talent Review sessions (Fig. 5.2-2). SL also participates in staff development and identifies potential leaders to participate in learning programs. SL conducts training, teaching many sessions at our leadership academies and HFHS University courses (HFHSU, 5.2c(1)).

- **Patient safety culture.** Our BOT has defined harm reduction as the System's top priority. AHRQ research suggests only 44% of patient harm is actually avoidable, yet our No Harm Campaign (6.1b(2)) aims for an aggressive 50% reduction from 2008 to 2013. Creating a culture of safety is the first of four elements in this critical SI. SL sets specific culture of safety goals during the annual SPP, and oversees comprehensive patient safety education and communication for all staff. The Culture of Safety action plan includes promoting and measuring employees' willingness to speak up about actual or potential safety problems. To accelerate improvement, SL initiated The Speak Up, Speak Out program. SL personally participates in sentinel event analyses, risk trend reviews, and emerging patient safety regulation and industry trends research to maintain performance leadership. SL members hold board and committee leadership positions for the MHA's Patient Safety Organization and Quality & Accountability Committee, Advisory Committees of The Joint Commission (TJC), and other patient safety organizations.

1.1b(1) Communication. To communicate with and engage the entire workforce, the CEO meets with the System Communications (SC) team monthly to evaluate, design and improve communication and engagement approaches of the HFHS Communication System (Fig. 1.1-2) to ensure:

- **Two-way exchange.** SL uses comprehensive tactics such as face-to-face, print and email communication, as well as social media such as vodcasts and blogs, to encourage frank exchange throughout the organization.
- **Key decisions.** SL communicates key decisions and reinforces the MVV, SOs, SIs, performance measures, and achievements and recognition. SL embeds communication in the action plans of every SI. To ensure integrated deployment, the SC team uses a Communicators' Roundtable comprised of BU chief communication officers to plan and execute communications. Consistent messages are integrated into communications to all key workforce segments in all BUs. SL engages the entire workforce in the deployment of Health Engagement (5.1b(1)); messaging was developed and tested through the HFHS MFI and then rolled out to employees.
- **Role in recognition.** Leadership Competencies (1.2a(2)) and the annual Performance Management Process (PMP, 5.2a(3)) set the expectation for routine recognition of employees, as measured by the Employee Engagement Survey and leader 360° feedback. SL and all leaders recognize employees through methods ranging from personal thank-you notes to award presentations honoring employees and teams. Every BU has recognition programs to reward teams or individuals for behaviors that support the MVV and THFE. SL honors top performers with "Focus on People" awards presented at the annual BOT caucus. Quarterly, SL recognizes role model managers nominated by their employees with the "Shadow of the Leader" award.

We evaluate and improve SC annually. For example, when the 2008 evaluation identified the need to improve the effectiveness of sharing HFHS messages, SL led development of "Take

Five” messages and toolkits, which leaders use System-wide during daily or weekly employee huddles.

1.1b(2) Focus on Action. SL creates a focus on action and identifies needed actions through the SPP. SL defines SOs and BU, pillar, and other System teams develop and prioritize SIs, action plans, key performance measures, and targets (Fig. 2.1-2). Action plan milestones and targets are cascaded to all managers and the workforce using the SPP (Steps 6-7) and PMP (5.2a(3)). Performance measures are monitored as part of OPRs using the System dashboard (4.1b). When targets are not met, action plans are revised, using the HFHS MFI as necessary and new initiatives are developed to take advantage of market opportunities. SL creates and balances value for patients and other stakeholders by ensuring that the SOs and performance measures in each pillar relate directly back to customer and stakeholder research and analysis on needs and expectations. Successes and/or strategy adjustments are shared with the workforce and stakeholders through communication channels (Fig. 1.1-2). For example, in 2006, HFHS leaders responded to a Request for Proposal by Canadian officials to serve as Ontario’s back-up provider of open heart procedures.

Demonstrating agility and leveraging our CCs of collaboration and innovation, HFHS created a referral partnership for Canadian patients needing emergency cardiac care. Since its inception, this partnership has brought in more than 330 patients and \$8.5 million in net revenue to the System.

1.2 Governance and Societal Responsibilities

1.2a(1) Governance System. The BOT provides oversight to HFHS and all System boards with defined, reserved powers, such as approval of mergers/acquisitions, and operating and capital budgets. HFHS achieves key aspects of governance as follows:

- **Accountability for management’s actions.** The BOT holds the CEO accountable for System performance. The BOT approves and monitors progress against the System strategic plan with monthly Dashboard OPRs. At least 20% of BOT meeting time is devoted to quality and safety issues. All BOT Committees provide quarterly updates to the BOT, including all compliance-related activities. When issues are identified, SL develops and deploys improvement plans. The BOT reviews SL’s individual performance (1.2a(2)).

Fig. 1.1-2: Communication System Deployment of Key Messages

FACE-TO-FACE	AUDIENCE	FREQUENCY	PURPOSE
Huddles	E, V, Ph, Tr	Weekly	Teams meet weekly for key messages and updates using the Take Five tool.
New Employee/ Leader/ Physician Orientation	E, V, Ph, Tr, T	Twice/ month	HFHS CEO, COO, CHRO, CMO, and other PC leaders educate, motivate, and excite employees regarding the organization and present the MVV.
All-Leadership & Town Hall Meetings	E, T	Semi-Annually	SL communicates the System’s MVV, strategic direction and key initiatives, recognizes best practices in each pillar, and responds to questions.
Staff Meetings	E, V, Ph, Tr	Monthly	Communicate progress against goals, roll out initiatives, and recognize staff.
Medical Staff Meetings	Ph	Quarterly	Communication on patient care, quality/safety, & performance improvement.
Leader Rounding	All	Continually	SL discusses employee concerns; safety, quality, and service initiatives.
Employee Advisory Groups	E	Monthly	SL obtains employee feedback on issues and programs and brings employee ideas and concerns to appropriate leadership forums.
Board Meetings	T	Bi-Monthly	Provide oversight of HFHS, discuss any issue raised by community members.
Open Door Policy	E, V, Ph, Tr, T	Continually	All leaders discuss employee concerns and ideas and provide coaching.
Community Adv. Councils	C, P	Quarterly	Provide and obtain input on current construction projects and process designs.
Patient Adv. Councils	P, C, E, Ph, Tr, S	Quarterly	Provide and obtain input on care design/redesign for quality, safety, or service.
Supplier Orientation	S	Quarterly & as needed	Orient suppliers to HFHS policies and practices that will impact them and obtain written certification as to their agreement to comply.
PRINT AND E-CHANNELS	AUDIENCE	FREQUENCY	PURPOSE
Communication Toolkits	All	Monthly	Provide tools for managers to communicate and understand key messages and respond to frequently asked questions.
Newsletters (System, BU, Physician, Trustee, Community)	All	Bi-weekly, monthly or quarterly	Articles from the SL provide updates about HFHS and local business unit activities, performance, and new programs/services as well as employee recognition.
HFHS Morning Post	E, Ph, Tr, T	Daily	Daily news that shares System information, HFHS news stories, & health care articles.
e-Nancy	E, V, Ph, Tr	Continually	Direct e-mail access to CEO provides a 24/7 communication forum.
DocintheD.com	All	Weekly	Blog by HFH CEO shares personal perspective on MVV and culture.
Senior Leader Vodcasts and Blogs	E, V, Ph, Tr, T	Weekly, Monthly	The HFHS CEO provides timely updates using both audio and visual displays; the HFH CEO maintains a weekly “Doc in the D” blog.
HFHS Intranet (Henry) and e-mail	E, V, Ph, Tr, T	Daily	Communicate key messages & progress against goals (dashboards), policies & procedures, clinical information, special announcements, newsletters, & articles.
HFHS Internet (henryford.com)	All	Daily	Provides services, appointments, health topics, physician finder, clinical information, Annual Report, MVV, health screening sessions, and links.
Public Area Postings	P, E, V, Ph, Tr	Continually	Post MVV and Patient Rights throughout System in public areas.
Voicemail Broadcast	E, Ph, Tr	As Needed	HFHS CEO communicates various key messages to all employees simultaneously.
Bulletin Boards	E, V, P, C	Weekly	Recognize staff, communicate progress against goals.
Thank you notes	All	As needed	Personal messages sent to individual’s home.
Supplier Newsletter	S	Quarterly	Inform supplier and partner community of activities likely to impact them.
Compliance Confidential Hotline	All	As needed	Provides a way to share directly with leadership concerns about actions of HFHS or its workforce that pose regulatory or other risks.
Pulse Surveys	E, Ph	As needed	Obtain feedback on specific topics, generally using the HFHS Intranet.

Bold = Two-way; E=Employees; V=Volunteers; Ph=Physicians; Tr=Trainees; C=Community; P=Patients T=Trustees; S=Suppliers/Partners

- **Fiscal accountability.** The Finance, A&CC, Investment, and Compensation Committees review plans, budgets, and status of operations, investments, and compensation. These Committee Chairs regularly update the BOT.
- **Transparency in operations.** All governance meetings include a full status report by pillar and Dashboard review. Trustees receive regular communications with System activities, market and competitive information, and health care environment news. The BOT actively participates in the SPP. Federal tax filings, SL compensation, and community benefit information are shared with the BOT annually. The COI Policy requires all trustees to sign a statement regarding potential business or personal conflicts (Fig. 7.4-4), and the BOT A&CC and Executive Committees address any material disclosures.
- **Independence of internal and external audits.** The VP of Audit & Compliance reports to A&CC for all strategic matters and to the HFHS President and COO for daily operations. He meets regularly with the A&CC in executive sessions, and the A&CC Chair meets with A&C staff annually. A&CC appoints external auditors who conduct annual independent audits. A&CC receives all external audit reports.
- **Protection of stakeholder interests.** Stakeholder representation on boards, the Code, and our Just Culture set the foundation for protecting all stakeholder interests. The BOT Nominating & Governance Committee reviews the composition of all boards to ensure members possess required skill sets and reflect each BU's community, culture, and demographics. The BOT Public Responsibility & Advocacy Committee provides stakeholder representation.

1.2a(2) Performance Evaluation. HFHS formally evaluates and improves SL effectiveness as individuals and as a team. All employees are evaluated based on the Team Member Standards, and HFHS leaders are evaluated based on the Leadership Competencies, which use the Baldrige categories to frame HFHS leadership expectations (5.2a(3)). The BOT reviews the HFHS CEO annually based on her behaviors, Leadership Competencies, PMP goal results, and qualitative feedback from key stakeholders. PMP goals are linked to the pillars and incorporate HFHS' performance and comparisons to data on similarly sized non-profit and for-profit health care organizations. SL members, including physicians, are evaluated by their direct supervisor using the PMP. Each receives formal mid-year and annual reviews, including review of 360° feedback and performance on the competencies, BU or departmental goals, and individual goals. Compensation is set based on these reviews, the scope of the individual's roles and responsibilities, and independent market data, which is reviewed and approved by the BOT Compensation Committee. Senior leaders use their reviews to establish individual IDPs for the coming year. The combined review results are analyzed to assess effectiveness of our HFLS and identify needed improvements. One example is addition of courses for all leaders on setting specific, measurable, attainable, relevant, time-bound (SMART) goals.

The BOT and all boards complete a biennial self-evaluation. They use Governance Institute data for comparison and create work plans to improve the lowest scoring elements (Fig.

7.4-3). This evaluation resulted in 2006 governance restructuring, including streamlining membership, formal charges for key committees, and agenda planning meetings to ensure more trustee input. The BOT Nominating and Governance Committee incorporates reviews of each BOT member during the annual nominating process. All Quality Committee members and new trustees receive an educational DVD on their role in quality and patient safety; in 2011 this and other educational programs are being expanded to all Boards and committees members based on favorable BOT feedback. Our approach to BOT education is recognized by IHI as a best practice in health care.

1.2b(1) Legal Behavior, Regulatory Behavior, and Accreditation. HFHS proactively identifies, assesses and addresses potential/perceived adverse societal, legal, regulatory and environmental impacts from its services and operations (Fig. 1.2-1):

- HFHS has an integrated compliance structure across all BUs to address issues related to legal and regulatory requirements. The VP of A&C serves as the Chief Compliance Officer and leads the HFHS Compliance Committee, which meets monthly and consists of BU Compliance leads and other subject matter experts. Each BU has its own Compliance Team with dual reporting to the BU CEO and the VP of A&C. Annually, the Committee conducts risk assessments and develops integrated work plans in the areas of greatest potential risk, providing key input to the ERC. The committee reports quarterly to the A&CC and annually to the BOT. The Committee designs, oversees delivery of, and evaluates workforce Compliance education (all key segments, BUs); updates the Code; and oversees the independent, anonymous Compliance hotline and whistleblower protection policies.
- Quality & Safety teams operate at each BU, monitoring all activities with the potential for having an adverse impact on patient care. This includes risks associated with equipment, new services, or operational changes. Incidents with the potential for patient litigation are identified and monitored jointly with a centralized risk management team. This team monitors trends in regulations and ensures the workforce is appropriately educated, advising HFHSU on required content for annual mandatory education.
- Research Administration and the Institutional Review Board (IRB) and Institutional Animal Rights Committee oversee potential risks from research. Research Administration oversees all research projects and the integration of evidence-based research into patient care protocols. The IRB reviews all research protocols involving human subjects, ensuring that research is not impacted by conflicts of interest and that all relative risks and potential concerns are reflected in participant consent agreements.
- HFHS incorporates the voice of the customer into design of new and ongoing services and operations. The BOT membership ensures that key stakeholders are represented in the governance function of every BU. HFHS conducts bi-annual community health needs assessments (CHNAs) to identify the most critical needs and ensure community benefit initiatives address these areas. Supply Chain Management proactively considers the impact of services and supplies on society.

- HFHS conserves natural resources directly and through our supply chain. Processes include: materials recycling, pest management to use less toxic materials and target our processes, cleaning with low-volatile organic compound and Green Seal products, stocking unbleached products in bathrooms and wash stations, high-efficiency lighting, food service process redesigns to reduce food waste, use of locally sourced products, and System-wide shift to healthier food choices. All new construction meets “green” standards, using recycled flooring products with low-volatile organic compound finishes and “green” wall coverings.

Fig. 1.2-1: Accountability, Accreditation, Compliance and Risk Management

PROCESSES	MEASURE	TARGET
Fiscal Accountability		
Internal audits	Material Weaknesses	Zero
External audits	Audit opinion	Clean
Insurance Commission Submission (HAP)	Acceptance	Accepted
OMB A-133 Research Audit	Findings	Zero
Accreditation/Licensure		
Joint Commission, DNV	Accreditation	Full
State—DOH Licensure	License	Issued
NCQA onsite reviews (HAP)	Accreditation	Full
CHAP review (Home Health)	Accreditation	Full
Accreditation Council for GME review	Accreditation	Full
Regulatory/Legal Compliance		
Policy—Mandatory training in HIPAA	% attendance	100%
Adherence to laws / regulations	% compliance	100%
OSHA reporting	% compliance	100%
EPA compliance management	% compliance	100%
NRC plan review	Compliance	License
Risk Management		
Compliance risk assessment	Completion	Complete
Medical equip. / technology training	Conducted	100%
Patient safety training	Conducted	100%
Lockdown and code drills	Conducted	100%
Ethics Management		
COI Disclosure Policy	% submitted	100%
Planned Privacy reviews	Plan completion	Complete
Security screenings	% screened	100%
CMS Sanctions Checking	% checked	100%
Criminal background checks	Completed	Complete
Annual HHS Breach reporting	Completed	Complete
Employee Compliance Hotline	Investigated	100%
IRB reviews	% completed	100%

1.2b(2) Ethical Behavior. HFHS promotes and ensures ethical behavior in all interactions through: 1) the Code and COI Disclosure Process (1.1a(2)); 2) education at employee orientations, standards for workforce learning, and other formal and informal trainings (5.2c(1)); 3) mechanisms for the workforce to share concerns and ask questions; and 4) proactively addressing regulatory and legal requirements.

The Code is posted on our intranet and deployed to all BU and workforce members immediately upon hire. It is evaluated and updated every three years. Annually, vendors agree to abide by HFHS policies, standards, and the Code. Private physicians agree to abide by medical staff bylaws and expectations of ethical practices upon appointment and reappointment. The COI Disclosure and Review process requires first dollar disclosure of all external relationships annually by all managers, employed physicians, researchers, trainees, and all other persons deemed to be in a role to influence purchasing decisions. A standard HFHS process provides guidance

to the entire workforce and allows reporting of any concerns to supervisors, SL, or the BOT. The workforce is protected by our whistle-blower policy and encouraged by our open-door policy. All staff use RadicaLogic or the 24-hour Compliance Line (Hotline) to report concerns. We analyze data from these sources for trends and review these analyses annually with SL, ERC, and the A&CC. Breaches of ethical behavior are investigated through Internal Audit, Compliance and/or Corporate Legal Services. As necessary, recommendations for disciplinary action are made to HR for final determination, up to and including termination. Non-employee contracts require compliance with HFHS policies and standards for ethical behavior.

1.2c(1) Societal Well-Being. Our R&E and Community pillars frame our consideration of societal well-being and benefit in strategy and daily operations. Leveraging our CCs of partnering and innovation, we contribute to our environmental, social, and economic systems.

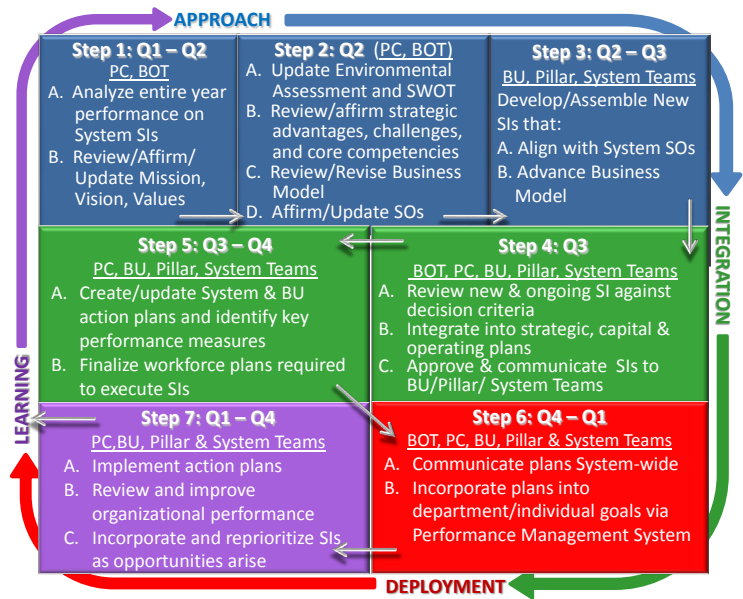
- During the SPP (Fig. 2.1-1, **Steps 2-4**), the PC analyzes the Environmental assessment (EA) and SWOT for gaps in services, demographic, market, and technology trends. The R&E and Community pillar teams further analyze emerging trends in their areas and identify SIs that will enable HFHS to achieve SOs. Pillar OPRs in operational forums are used to track measures of benefit to our communities.
- We serve as an economic engine for Michigan as one of the state’s largest employers, contributing \$5.8 billion in 2010 (Fig. 7.4-12). Multiple approaches ensure employees’ and their families’ well-being (5.1b(2)).
- We train physicians, researchers, nurses, and ancillary services staff at all HFHS hospitals and many clinical locations in partnership with WSU, targeting professions in greatest need. Our role in health professions education contributes to the well-being of MI residents; one third of all MI practicing physicians have trained at HFHS.
- HFHS contributes to discovery and innovation. The research enterprise allows us to pursue grants and research contracts from government, foundations, and private companies. Recent contributions, including robotic surgery, imaging technologies, and vascular surgery, all contribute to leading edge technologies for health care in the U.S. and internationally. Sample innovations are listed in Fig. 7.4-14.

1.2c(2) Community Support. HFHS supports and strengthens our key communities through delivering needed services and leading and partnering with other organizations to positively impact high-priority health issues. The Community pillar team (CPT) analyzes multiple sources of health status, demographic, and socioeconomic information to identify key communities, prioritize specific population needs, and determine the focus for HFHS involvement. The PC reviews and makes final decisions on community pillar goals. Key communities include underserved and disadvantaged populations, prioritized by those with greatest needs. The CPT leverages our CCs of partnering/collaborating, innovation, and care coordination to design and implement SIs and action plans to address these priorities. The CPT monitors progress through OPRs of action plans and performance measures and reports results semi-annually to the PC.

To improve access to care for people without adequate health insurance (Fig. 2.1-2, Community SI), a key community group, we standardized policies and processes across BUs for treatment of the uninsured, including on-site counseling and application support for medical assistance programs, discount policies for private paying (uninsured) patients, and clinical support and provision of specialty referrals for multiple community health centers. HFMS physicians voluntarily staff two Community Health & Social Services Centers (CHASS Clinics), federally qualified health centers that serve underinsured people. HFMS provided \$3 million to CHASS Southwest Detroit to rebuild and expand their facility in 2010. We also staff a Neighbors Caring for Neighbors Clinic and Faith Community Nursing Network (Fig. 7.4-8). We built a Medical Cost Avoidance tool that measures costs avoided or saved by our safety-net providers. Nearly \$1.4M has been saved in the last year.

Other HFMS programs to support and benefit high-priority communities include: 1) the School-Based and Community Health Program, which takes primary and preventive care to Detroit classrooms; 2) the Institute on Multicultural Health, which provides research on health and health care ethnic and racial disparities, coordination of the Healthcare Equity Campaign, and community based health screenings and education for diabetes, hypertension, obesity, and hyperlipidemia; 3) a partnership with the Detroit Wayne County Health Authority to facilitate care coordination and enhance efficiencies; 4) a HAP partnership with Weight Watchers to support member weight loss (7.4a(5)*); 5) SandCastles, a division of HFMS Hospice, offering open-ended grief support for children and families suffering the loss of a loved one; 6) the Detroit Regional Infant Mortality Reduction Task Force, convened by HFMS and composed of all major health systems, public health entities, academic and community partners; and 7) the Live Midtown housing project benefit (5.1b(2)). SL and employees actively participate in community service programs, and SL members personally serve on community service boards and lead collaborative initiatives including government, competitors, and foundations.

Fig. 2.1-1: HFMS Strategic Planning Process



The SPP is a seven-step cycle that spans an entire year of scheduled, facilitated meetings. In **Step 1A**, the PC conducts a comprehensive, year-end performance review of HFMS and its BUs to determine trends, strengths and opportunities. Semi-annual reviews of all SIs are accomplished through scheduled OPR sessions at PC meetings (**Step 7**). The PC reviews and reaffirms the MVV and oversees any needed updates with input and approval by the BOT (**Step 1B**). In **Step 2A**, the PC analyzes an EA and conducts a SWOT analysis. In **Step 2B**, reflecting on the year-end performance review, MVV, EA, and SWOT, the PC validates and/or updates the HFMS strategic advantages, challenges, and CCs (P.1a(2)). Scenario models are created in **Step 2C** based on future market assumptions. Scenarios highlight future needed CCs and potential blind spots and allow the PC to revise the business model if necessary. The business model defines our mix of businesses (IP, OP, post-acute, community), clinical services, and geographic distribution. The PC affirms or updates the long-term SOs during facilitated, criteria-driven dialogues to ensure they drive sustainable results and align with the business model (**Step 2D**). The proposed SOs are evaluated and balanced against stakeholder interests by the BOT at its Q2 retreat. Since the BOT includes community members specifically selected to represent the diverse interests of key stakeholder groups (1.2a(1)), the members challenge internal leaders to systematically analyze all SPP inputs from key patient and stakeholder perspectives.

In **Step 3**, BU, pillar, and other System teams develop and propose three-year SIs that align with the System SOs and support the future business model. Prior to **Step 4**, each proposed SI is championed by a PC member responsible for creating a written proposal that includes high-level impact assessments of how the SI will address each prioritization criterion used (**Step 4A**). To stay focused on results and successful implementation of existing SIs, proposals for new SIs are only solicited every third year of the planning cycle. In interim years, only a few, opportunistic SIs are reviewed against the standard decision criteria and integrated into the existing strategic, capital, and operating plans as appropriate (**Step 4B**). Using the SOs as

2 STRATEGIC PLANNING

2.1 Strategy Development

2.1a(1) Strategic Planning Process. SPP steps and quarterly timeframes are shown in Fig. 2.1-1. The PC leads the annual planning cycle and involves the BOT, pillar teams, BU teams, and other System teams as shown. EC established our short-term (one year) and long-term (three year) time horizons to address fast-paced changes in the local economy and national health reform, ensure alignment with longer-term capital and strategic project timelines, and foster disciplined deployment and a focus on results. HFMS's three-year rolling SPP is evaluated and improved annually to ensure System/BU alignment, sustainability, and vision attainment. In 2010, using the MFI, the SPP annual cycle was revised to better integrate with the capital and operational planning processes, to include a review of the HFMS business model, and to confirm key inputs and outputs of each step.

a guide ensures the SIs created by the various teams support the MVV, foster our CCs, address our strategic challenges, leverage our strategic advantages, and align with the business model. The PC reviews and prioritizes proposed SIs (**Step 4C**) using the following criteria to ensure organizational sustainability: 1) impact on System integration and SO achievement, 2) return on human and financial resource investments, and 3) probability of successful implementation to meet the needs of key stakeholders. Two categories, Capital and Non-Capital SIs, are ranked by the PC and reviewed by the EC. Priority SIs are cascaded to BU, pillar, or other System teams and assigned to permanent owner(s).

In **Step 5A**, each SI owner is responsible for creating and maintaining detailed action plans (2.2a(1)). Estimated revenue, expense, and capital projections are forwarded to Finance and used to refine the three-year operating and capital budgets, ensuring alignment. Each BU BOT reviews the System SOs and SIs to identify actions required to align local and System activities. In **Step 5B** the final SI and key BU-level action plans are reviewed by the PC to ensure HR, IT, and financial resource needs can be met, or to adjust action plan details or timing if necessary (2.2a(3)). The System Strategic Plan for the next three years, including operating and capital budgets to support the chosen SIs, is approved by the BOT each October.

Fully reconciled System and BU-level plans and budgets are communicated (**Step 6A**) to all leadership, employees, partners and suppliers through leadership meetings, newsletters, and emails/vodcasts (Fig. 1.1-2). **Step 6B** of the cycle cascades System and BU action plans and performance targets to departments, then to individuals, and incorporates them into the PMP (5.2a(3)) for the coming year.

Step 7 is ongoing as action plans are implemented by the assigned SI owners. The PC reviews dashboard and action plan progress, led by the SI owners, at bi-weekly OPR sessions (4.1b). Each System SI is reviewed at least twice per year, with additional SIs reviewed as required by action plans or as they are discussed for possible addition to the Strategic Plan. This routine review and discussion fosters learning from comparative performance analyses and best practices. Owners of SIs not achieving expected progress use the MFI (Fig. 6.1-2) to adjust actions and implement changes (4.1c).

2.1a(2) Strategy Considerations. HFHS considers a broad set of strategic elements during the SPP.

- The **SWOT** is created by Planning and support areas for vetting and revision by the PC and BOT (**Step 2A**). Input to this assessment comes from the BOT and all PC members.
- The EA, created at the beginning of the SPP cycle and updated quarterly, contains **indicators of major shifts** in technology, markets, health care services, patient and stakeholder preferences, competition, the economy, and the regulatory environment. Knowledge sources are both internal (CDS) and external (MIDB, NRC, CRM, Press Ganey, the HCAB, Sg2, Thomson Reuters, SEM Data exchange, MDCH website, and competitor news briefings). For example, an Sg2 tool summarizes historical trends and forecasts market shifts for each of the next 10 years, including impacts of popula-

tion shifts, legislative reform, prospective payment changes, and shifts in technology and health care services. Patient and stakeholder preferences and changes are gathered using NRC, CRM, and Press Ganey databases and custom research. Focus groups and patient design team members provide feedback about specific assumptions or SIs.

- Scenario planning addresses **long term organizational sustainability** by modeling key regional and national environmental, payment, workforce, and competitor activity and performance assumptions into likely future scenarios which inform our strategic priorities. This modeling also helps identify potential new core competencies.
- The **ability to execute the strategic plan** is assured in two ways: the decision criteria used by the PC to prioritize SIs (**Step 4**) and ongoing OPR (**Step 7**) of performance metrics and action plans utilizing the MFI.

2.1b(1) Key Strategic Objectives. Key elements of the HFHS Strategic Plan, including the System's SOs, SIs, action plans, and performance measures and targets, are shown in Fig. 2.1-2. Action plans are designated as short-term (implemented within one year) or long-term (implemented over two to three years) based on the PC's evaluation of market urgency and stakeholder and resource needs. The most important plans for 2011-2013 appear in bold text in Fig. 2.1-2.

2.1b(2) Strategic Objective Considerations. Our SOs achieve the following through systematic approaches.

- **Address SCs and SAs.** PC analyzes the System OPR, the EA, SWOT, and scenario models to update our strategic challenges and advantages. This analysis provides input to **Step 2D**, when the SOs are reaffirmed or revised.
- **Address innovation and business model.** The SOs/SIs address opportunities in two areas: 1) new innovations (e.g., growth in new technologies, implementing new approaches to reduce harm) and 2) sustaining the business (staying current with programs and services while our environment changes). Our innovation approaches, key elements of our HFLS, and MFI ensure that SOs and SIs incorporate best practices and spawn innovations for local and national impact (Fig. 7.4-14). Our business model is refined in **Step 2**.
- **Capitalize on core competencies.** Our CCs inform our selection of SOs. SIs and their implementation leverage our CCs and SAs. When the need to develop our current or build a new CC is identified during the SPP, this is factored into the relevant pillar's SOs, SIs, and action plans. For example, we identified the need to evolve and develop our CC of innovation and in 2010, established an Innovation Institute with WSU to continue to lead in this area. Learnings from this partnership will inform design of new R&E approaches and new offerings through HFHSU.
- **Balance short and longer term.** We achieve balance by ensuring that the longer-term SOs are supported by SIs with short- and long-term action plans. The quarterly EAs and routine OPRs allow us to identify and respond to new challenges and opportunities throughout the SPP cycle.
- **Balance key stakeholder needs.** Patient, purchaser, and community needs (current and changing) are incorporated into EAs, scenario planning, and SI prioritization criteria to

Fig. 2.1-2: HFHS Strategic Plan—Strategic Objectives; System Strategic Initiatives; Key Plans, Measures, and Performance Targets

STRATEGIC CHALLENGE / ADVANT.*	STRATEGIC OBJECTIVES BY PILLAR (KEY STAKEHOLDERS*)	SYSTEM STRATEGIC INITIATIVES (CORE COMPETENCIES*)	KEY SHORT-TERM (ST) AND LONG-TERM (LT) PLANS (Bold = most important)	KEY PERFORMANCE MEASURES (RESULTS FIGURES) (Bold = most important)	PERFORMANCE TARGETS		BEST COMP 2013
					2011	Stretch 2013	
SC7	People: National leader in healthcare employee retention and engagement (KS1,2)	Develop a competent, agile workforce and build a culture of development (C1, C2, C3) Develop a high-performance work environment with a highly engaged workforce (C1, C3)	Develop & implement a flexible staffing model; internal staffing pool (ST) Enhance 1st yr. retention programs (LT) Focus on increasing engagement scores for bottom quartile leaders (ST) Conduct semi-annual pulse surveys for employees, including toolkits and support for all managers (LT)	Overall Employee Turnover (Fig. 7.3-3)		7.3%	
SA1, 4, 6				Overall & Nursing Engagement Index, 1-5 scale (Fig. 7.3-15)		4.35	
SC3,4	Service: Best-in-class service to our customers among U.S. healthcare organizations (KS1,2,3)	Create consistency of The Henry Ford Experience at all HFHS facilities (C1, C2, C3)	Share lessons and customer feedback to spread best practices (ST); Roll-out Culture of Service plan (LT)	HCAHPS results at/above national benchmarks (Fig.7.2-5)		100%	
SA1, 4, 5				% Top Box, "Likelihood to Recommend" (Fig. 7.2-3,8,10)		90%/ile	
SC2, 5	Quality & Safety: National leader in delivering safe, reliable, high-quality, & highly coordinated care to each individual patient (KS1,2,3)	Fully implement the HFHS No Harm Campaign via System and local collaborative teams (C1,C2,C3) Reduce readmissions via discharge and post-acute coordination (C2)	Implement best practices for reducing harm in each of the 6 harm categories (LT)	Harm events per 1000 acute care patient days (Fig.7. 1-1)		n/a	
SA1, 4, 5			Implement readmissions avoidance tactics at all sites (ST); System-wide case management system (LT)	Readmissions within 30 Days (Fig. 7.1-13)		8.0%	
SC1, 2, 3, 6	Growth: Dominant health system in Michigan (KS1,2,3)	Execute growth plans for hospitals to capture market share (C2, C3) Execute physician integration and access improvements (C1, C2, C3)	Implement strategies to attract new business to HFWBH and HFH (LT) and HFMH-WC (ST) Expand HFMG ambulatory centers in high growth markets; recruit needed physicians (LT)	Tri-County IP Market Share (Fig. 7.5-11) IP Admissions (Fig. 7.5-9) OP Visit Volume (Fig. 7.5-14)		20.2%	
SA1 - 5			Launch new HAP products in preparation for 2012-2013 enrollment periods (LT)	Total HAP membership (Fig. 7.5-15)		116,686	
SC2, 5, 7	Research & Education: Leading independent academic medical center and nationally preferred clinical research partner (KS1,2,3)	Strengthen research and education programs through new medical school affiliation(s) and fully integrated allopathic and osteopathic GME programs (C1, C3)	Expand research capabilities and clinical trials to attract new NIH and other external funding (LT) Integrate Medical Education System-wide (LT)	NIH research grants and contracts (7.1b(1)*) Trainee Satisfaction (Fig. 7.3-14) Ready for independent practice (Fig. 7.3-14)		\$33M	
SA1, 2, 4, 5, 6			Increase support and utilization of community clinics Implement Community Benefit management and reporting structures for all BUs (ST); link to CHNA (LT)	Visits to Community Clinics (Fig. 7.4-8) Community Benefit (Fig. 7.4-11)		n/a	
SC5, 6	Community: National leader in community health advocacy and involvement (KS1,2,3)	Improve access to care/services for the Underinsured/Uninsured (C2, C3) Leverage the refreshed CHNA report at all BUs and address identified community needs. (C2,C3)	Continue revenue and cost management programs at all sites (LT)	System Operating Net Income (Fig. 7.5-1) Cost per Unit of Service (Fig. 7.5-2)		n/a	
SA1, 3, 4			Achieve operating profit and philanthropic donations sufficient to fund 3-year capital plans (C3)	% Philanthropic Donor Renewal (Fig. 7.4-7) Philanthropy Cash Collected (Fig. 7.5-8)		n/a	
SC1, 2, 3, 5, 6	Finance: Financial strength to fund clinical services, health management, people, research, and education strategies (KS1,2,3)					n/a	
SA1 - 5						n/a	

***Strategic Challenges:** SC1=Cost Control/Revenue Growth, SC2= Phys. Align/Accountable, SC3=Increased Competition, SC4=Increased Consumerism SC5= Care Redesign SC6= Care Needs Diverse Population SC7= Workforce Support **Strategic Advantages:** SA1="Can Do" Spirit, SA2=Strategic Geographic Positioning SA3=Community Support SA4=Commitment to Diversity/Equity SA5=System Integration SA6=Academic Mission **Key Stakeholders:** KS1=Patients (IP, OP, ED, CCS) KS2=Community (Detroit, Regional service areas), KS3=Purchasers (Employers, Health Plan Members) **Core Competencies:** C1=Innovation, C2=Care Coordination, C3=Collaboration/Partnering

address SOs. These assessments identify shifts among stakeholder groups, such as purchasers needing new wellness-focused insurance products to offer their employees.

- **Adapt to sudden shifts.** By re-evaluating our SOs/SIs annually, and through routine OPRs, PC can respond/adapt to both evolving and sudden shifts in our environment.

2.2 Strategy Implementation

2.2a(1) Action Plan Development. Each SI owner creates a detailed action plan for initiative implementation using a standard format (**Step 5A-B**) that includes specific tactics, performance measures for OPRs and Action Plan Monitors (4.1a(1)), and owners responsible for each tactic to drive accountability. Pillar or other System teams oversee implementation, monitor progress, make midcourse corrections, and report summary progress to the PC at least semi-annually. Our SOs plus key SIs, short- and long- term action plans, and performance measures are shown in Fig. 2.1-2. Key planned changes addressed in our on-site, detailed action plans include: rolling out CPNG for enhanced clinical communications and information sharing (4.2a(2)), integrating clinical services through a new Henry Ford Physician Network (HFPN), and expanding collaboration on education, innovation, and research with WSU. Our integrated System (SA5), CCs, and “can do spirit” (SA1) help to keep us agile in adapting to health care reform and market changes (SC1, 2, 5; P.2b). Over the last five years, we have made significant investments in our SOs, SIs, and infrastructure, made possible by our strategic and financial successes (7.5a(1, 2)).

2.2a(2) Action Plan Implementation. Action plans are deployed through SPP **Steps 6-7** using several mechanisms including: 1) our communications system (1.1a(2), SPP **Step 6A**); 2) incorporating plans into department and individual goals through the Performance Management System (SPP **Step 6B**); and 3) implementing action plans (**Step 7A**), and 4) System-wide dashboards and OPRs (4.1b, SPP **Step 7B-C**). A standard action plan format and the System dashboard ensure teams use a systematic approach. The PC reviews System and BU SI plans as they are initiated and again throughout the year during OPRs. Once reviewed, aligned, and approved, new SI action plans are communicated and deployed System-wide to work units, suppliers, and partners (Fig. 1.1-2). The PC reviews progress and identifies needed changes or improvements, and assigns specific accountability for changes in plans. Changes to plans leverage the MFI, ensuring alignment and the use of past learning to redesign the plan over time. Each team draws on our CCs to design and execute action plans. Our disciplined action plan implementation is a key element of our HFSL.

The System dashboard is updated monthly and available on Henry and the BOT website (4.1b). Action plans and dashboards are also used to convey progress to those suppliers, partners, and collaborators involved in particular SIs. Each team’s review of tactical status and performance outcomes ensures that barriers to progress are revealed and addressed and key outcomes to action plans can be achieved and sustained. The successful processes are hardwired using the PDCA cycle in the MFI and shared System-wide through use of the KW (4.2a(3)) and other communication methods.

2.2a(3) Resource Allocation. To ensure that financial, IT, and human resources are available to support the accomplishment of our action plans, the PC coordinates its detailed action planning to coincide with the annual capital and operating budgeting process in **Steps 4B and 5B**. Proposed SIs and action plans undergo impact analyses, including capital and other resource requirements (**Steps 5A-B**) and implementation risks, and the criteria used to prioritize SIs also consider impact on financial and human resources and availability of capital and operating funds. Capital and operating requirements for the selected SIs are included in the budget process. Human resource needs are aggregated across all action plans and reviewed by the Human Resources Executive Team (HRET) to ensure the people and skills necessary to deploy action plans are available. HRET summarizes key gaps in human resource capacity (5.2a(1)), and the PC reconciles all resource needs during **Step 5B**.

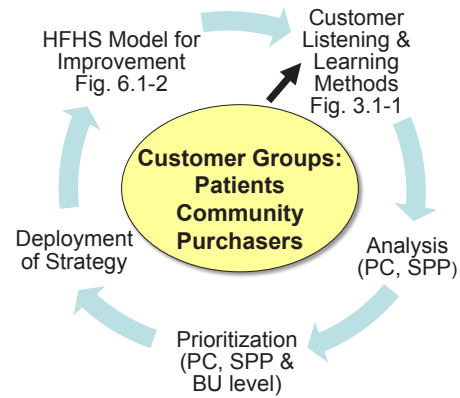
2.2a(4) Workforce Plans. Our key human resource SIs and plans are listed in Fig. 2.1-2 (additional People plans are available on site (AOS)) and incorporated into the People SO of the strategic plan. HRET works with all BU leaders to identify human resource plans, including potential future changes in key workforce segments (P.1a(3)), to ensure each BU has the capacity to achieve all its SOs with BU-level action plans and performance targets. Key human resource plans for 2011-2013 focus on the SIs of workforce planning, retention, and engagement and include implementing new flexible staffing models, retention approaches, and engagement toolkits to create a competent and agile workforce.

2.2a(5) Performance Measures. Key performance measures are shown in bold text in Fig. 2.1-2. Action plan progress is assessed using dashboard organizational performance measures and action plan monitors (4.1b). The System dashboard includes key System level performance measures associated with SIs. The performance measures and targets for specific plans are created to align with the System SOs (4.1a(1)). For example, the 2011 Quality/Safety performance target of 12.2% readmissions within 30 days aligns with the SI to reduce readmissions via discharge and post-acute coordination, which in turn supports the SO to be a national leader in delivering safe, highly-coordinated care.

2.2a(6) Action Plan Modification. The PC conducts bi-weekly meetings to review SI and BU action plans and performance measures to determine if adjustments are required (**Step 7**). SI owners not achieving performance targets use the MFI to modify action plans. Changes to the market, such as new employers, businesses closing or downsizing, competitor moves (new facilities, new service offerings), new technology opportunities (e.g. health care stimulus dollars for CPNG), or legislative/regulatory changes are discussed throughout the year by the PC. Scenario models inform PC members of potential short- and long-term impacts of market and economic changes. Urgent issues requiring a more immediate response than the bi-weekly PC meetings are resolved by the EC. Any required follow-up, including new or revised SIs or action plans, is assigned to a specific owner for review at a future PC meeting.

2.2b Performance Projections. Our 2011-2013 performance targets reflect our projected performance and are based on historical trends, competitive benchmarking, and projected impact of implemented SIs (Fig. 2.1-2). Targets are developed by the assigned team, with input from functional experts and the Metrics Committee (MC), and approved by PC (Step 5). In keeping with HFHS’s commitment to “stretch” goals, our targets are usually based on the most aggressive comparisons to competitors, national standards, or benchmarks (4.1a(1)). Gaps and shortfalls are identified through OPRs and action plan monitoring and addressed by revising SIs or action plans. The improvement cycle approaches described in 4.1b and 4.1c utilize each team’s past performance and learning to innovate and refine action plans.

Fig. 3.1-2: Voice of the Customer Inquiry Process



3 CUSTOMER FOCUS

3.1 Voice of the Customer

3.1a(1) Listening to Current Patients and Stakeholders. HFHS uses integrated listening and learning processes to hear the Voice of the Customer (VOC, Fig. 3.1-1). VOC information reaches us continuously from the: 1) patient satisfaction process (3.2b(1)); 2) relationship building process (3.2a(1)); 3) comment management process (3.2a(3)); 4) community needs assessments (1.2c); 5) access mechanisms (Fig 3.2-1); and 6) SPP (2.1a (1)). We tailor listening methods to different customer groups. Deployment of VOC methods range from leadership rounding at all IP facilities to disseminating and responding to HAP member disenrollment data. In addition, a variety of listening methods recognize potential risks and/or adverse impacts on our operations and address community concerns (1.2b(1)).

position, pulmonary hygiene, personal needs, possessions, and place (the environment of the room). Following discharge or surgery, hospital patients receive follow-up calls (based on diagnosis), and a 24/7 discharge hotline is available to patients and their families for questions about post-hospital care, the healing process, medications, or discharge instructions.

Fig. 3.1-1: Listening and Learning Methods

METHOD	STAKEHOLDER	FREQUENCY	RELATIONSHIP STAGE*
MHA Databases	PT	Continuous	IP,OP
CPM CHUI Data	PT	Continuous	IP,ED,OP
NRC	PT	Annually	IP
HCAB/Sg2	PT, PU, C	Semi-annually	IP,ED,OP,CC
Satisfaction/Dissatisfaction Surveys	PT	Monthly	IP,ED,OP
		Annually	HAP
RadicaLogic	PT	Ongoing	IP,ED,OP,CC
Complaint System, Rounding	PT	Continuous	IP,ED,OP,CC
Market Research	PT, PU, C	Ongoing	IP,ED,OP,CC
BOT Meetings	PT, PU, C	Quarterly	IP,ED,OP,CC,HAP
Pt./Emplr Comm. Meetings	PT, PU, C	Ongoing	IP,ED,OP,CC
Advisory Group Meetings	PT, PU, C	Ongoing	IP,ED,OP,CC
PI Teams	PT, PU, C	Ongoing	IP,ED,OP,CC,HAP
Web site	PT, C	Ongoing	IP,ED,OP,CC

Stakeholders Key: PT = Patients & Family Members; PU = Purchasers; C = Community Organizations. **Note:* IP and OP include HFMG

For immediate and actionable VOC feedback, employees at all BUs and across all stages of the patient relationship close each patient interaction by asking “Is there anything else I can do for you?” or “Is there anything that could have made your experience better?” Employees are empowered to initiate immediate service recovery using HEART (Fig. 3.2-2). Service recovery steps are introduced to all workforce segments at orientation and reinforced through weekly huddles and monthly toolkits (3.2b(1)). Most of our hospitals offer patients an innovative, real-time electronic mechanism to input immediate and actionable feedback such as concerns, requests, or compliments during their hospital visit. Patients express a concern and/or compliment electronically via their television, and hospital leadership responds immediately to the patient’s concern. All feedback is logged, and hospital leadership reviews it monthly for trends to develop action plans.

The Planning, Marketing, and Customer Engagement (CE, 3.2a(1)) Departments aggregate and analyze VOC information (Fig. 3.1-2) to identify improvements. Then, VOC information is discussed and lessons shared across BUs through the PC, CE Steering Committee (CESC), and other leadership forums to deploy best practices (4.1c(1)). Leaders also use this information during the SPP to shape SOs, SIs, and action plans.

For employer VOC feedback, HAP uses an outreach program that includes four telephone touch points during the two years after the employer signs with HAP, timed to occur after the employer has rolled out key services (e.g., ID cards distribution) and completed enrollment. Feedback from HAP agents and employer decision makers identifies systemic issues and helps HAP design short and long-term resolutions. HAP also has an individual member outreach program that includes four member-specific touch points over the two years following sign-up. HAP’s Member Services staff assess the member’s understanding of the program and satisfaction with HAP services, then document and share feedback. HAP listening posts include the Labor Advisory Board and the Agent/Producer Advisory Board, which are employer forums conducted several times a year.

In all BUs, senior leaders/department heads conduct leadership rounds to greet employees, patients, and families, and inquire about service and safety concerns to capture actionable feedback. An hourly nurse-rounding program is deployed across all System hospitals, during which nurses assess the patient’s pain,

To address SC4, social media experts within the HFHS Web Services Department monitor social media responses and acknowledge patient and community member compliments and complaints. The team receives alerts when HFHS keywords are used in any online venue. These posts are addressed in real-time. The staff direct customers to the right forums as needed and has authority to quickly resolve customer concerns and

complaints. HFHS has begun using Google Alerts and Google Trends to listen and learn from current, potential, and competitors' patients. The social media staff uses these tools to follow trends and provide insights into broad patterns for the HFHS SE Leaders, along with the summarized complaint data from RadicaLogic (3.2b(2)).

3.1a(2) Listening to Potential Patients and Stakeholders.

HFHS employs formal and informal methods for obtaining actionable feedback from competitors' customers, former patients, and community members. Formally, HFHS monitors:

- Patient referrals from physicians via our concierge program
- Health care trends and behaviors through the NRC survey process (Fig. 7.2-1) that includes listening insights from former and potential customers and competitors' customers
- HFHS's competitor database, which provides demographic and market information by service and geography
- HAP member transfers to another network. We monitor the net increase or decrease in members from one independent practice association (IPA) to another.

Informally, the Marketing and PR Departments review information from local media, competitor websites, advertisements, and press releases. We also obtain feedback on our services through discussions with trustees, partners, and community collaborators. All these data are analyzed by demographic and service line segments. Environmental updates are prepared by Planning, Marketing, HAP Planning, and strategic supplier/partners (Fig. P.1-8) throughout the year. These updates are discussed at PC and other leadership venues. The Planning Department also completes an annual EA that includes new health care issues, local community economic and political conditions, competitor tactics within the region, and projected impacts on HFHS. The PC reviews these analyses and competitive data in **Step 2** of the SPP to provide input into our SOs as well as throughout the year during routine OPRs.

3.1b(1) Satisfaction and Engagement. In early 2011 SL created new organizational infrastructure around the Service Pillar to focus on customer engagement. Three System leaders now own the entire continuum for the CE Department. This new structure is accountable for creating a System-wide approach to service, leading to a consistent experience for all HFHS customers. This structure includes two new process improvement managers, ongoing leadership by the SE BU leaders, and SE Champions at the departmental and unit level.

Determining satisfaction and engagement. PG surveys are used for patient satisfaction measurement across all BUs, except for highly specialized services such as medical equipment and optical sales, which use surveys that allow for feedback on those specific services (results on site). Questions on the IP, OP, ED and Community Care satisfaction surveys are tailored to the stage of the relationship. SE Leaders benchmark the data by survey type to national and local peer groups. In 2008, "likelihood to recommend" was added as an engagement and loyalty metric to the System dashboard (4.1a(1)), and specific improvement goals were developed around this measure. In 2009, HFHS

added "top box" (the % of five ratings on a scale of 1-5) for the "likelihood to recommend" metric to the System dashboard.

Satisfaction/engagement surveys are mailed to patients' homes within two weeks of an encounter or discharge and returned directly to Press Ganey (PG). Department leaders have next-day access to data through PG's InfoEdge system, allowing rapid identification of process improvement opportunities. InfoEdge also contains analysis tools that identify top opportunities and key drivers of patient satisfaction that can be drilled down to unit level performance. Educational courses (5.2c(1)) presented by Quality/Safety staff and SE leaders help managers interpret data and design and implement action plans. System-wide satisfaction and engagement results and priorities for improvement are summarized monthly by the CE Department and shared with PC (3.2a(4)). PG creates quarterly reports for SL showing cross-BU results in each survey area (IP, ED, etc.) compared to benchmarks. Reports are posted on the Intranet for employees to view. The PC also reviews PG results across BUs each month as part of OPRs (4.1b). Leaders overseeing vendor contracts review survey data with suppliers and partners to identify improvements. Depending on the initiative, satisfaction and engagement results are shared with collaborators and partners, such as Patient Advisory Groups, automotive benefit executives, MHA, and IHI. PG patient survey results are also available on henryford.com for patients, families, potential patients, and the community.

HAP uses multiple approaches to determine member satisfaction, including the annual subscriber survey (Fig. 7.2-17), a primary care access survey, call center spot surveys, and health plan specific surveys such as CAHPS (Fig. 7.2-16) for each of its insurance products. Comparisons are made to national, local, and competitor health plans. HAP's Quality Department and senior leaders assess trends, then implement and track improvement plans.

3.1b(2) Satisfaction Relative to Competitors.

Obtaining and using comparative information. We obtain and use comparative information on patients, families, and communities in two distinct ways: 1) market research and patient, family, and community focus groups, and 2) customer surveys through PG, HCAHPS and CAHPS, which provide satisfaction and engagement comparisons to hospitals and health plans in SEM, MI, and the U.S.

Market research & focus groups. Listening methods (Fig. 3.1-1) are supplemented with patient and community focus groups, mystery shopping, and other research to ensure initiatives and designs meet stakeholder needs. BUs use focus groups to assess satisfaction with competitors, identify new service opportunities, and drive improvement. Market research tools such as NRC and Market Measurement compare the satisfaction and health system preferences of both current and prospective customers (Fig. 7.2-1).

Customer surveys. PG provides national and local level comparisons and practices of high-performing organizations (3.1b(1)). HCAHPS is a standard, publicly reported survey instrument and data collection method for measuring patients'

perspectives on hospital care (Fig. 7.2-5). CAHPS surveys are used to rank health plans relative to each other (Fig. 7.2-16). Both HCAHPS and CAHPS surveys allow us to compare our performance to our competitors by name, and all three surveys allow us to identify specific issues and improve services. Each of these data sources is used to evaluate process performance and set priorities for improvement through the SPP (Fig. 2.1-1, **Step 4**), OPR process (4.1b), analysis of daily operations (6.2b(1)), Baldrige-based assessments, and all components of our integrated performance improvement system (P.2c, 6.2b(4)).

3.1b(3) Dissatisfaction. All methods for gathering, analyzing, and reporting patient and member satisfaction and engagement data also serve to measure dissatisfaction (3.1b(1)). Quantitative data come in the form of low scores, and qualitative data are derived from complaints and comments, focus groups, websites, social media and through verbal or telephone comments logged in RadicalLogic’s complaint management system (Fig. 3.2-3, Steps 2-3). Complaint information from dissatisfaction comments in surveys is also shared with IT, food service, housekeeping, and other partners to increase patient satisfaction and evaluate partner performance (3.1b(1)). Complaint reports are generated at the BU and System levels and shared with SE Leaders monthly to identify common themes. When appropriate, work teams are created to develop improvement plans. These are reviewed for progress by the CESC.

A mystery shopping program is conducted at HFMG sites to assess our Customer Service Representatives (CSRs). We receive the results within 48 hours and share them with the management of the clinic where the shop occurred. Common themes are shared at monthly CSR forums to improve performance. Leadership at these sites developed key greeting expectations for CSRs at the front desk and used an audit tool to monitor the PG item “Courtesy of registration staff.”

3.2 Customer Engagement

3.2a(1) Health Care Service Offerings. During **Step 3** of the SPP, the PC draws on research (including shifts in technology, health markets, and patient preferences) and recommendations from BU and other System teams on emerging best practices to identify opportunities for innovative service offerings. Prioritized initiatives are translated into action plans and assigned to teams for implementation. Key inputs to this process include information received through listening posts (Fig. 3.1-1) and from health care research partners. For example, the CISC continually researches and deploys new approaches to coordinate and customize care based on the patient’s specific needs and preferences (6.2b(2)). Other innovations implemented by the CISC include deployment of Patient Centered Team Care (PCTC), and e-care opportunities such as e-visits, e-scheduling, e-prescribing, and the MyHealth portal (3.2a(2)). E-prescribing initially started as an innovation with the auto industry, was extended throughout HAP, and is now a practice industry-wide that has significant impact not only within HFHS, but nationally.

The PC, BUs, and Marketing use the VOC inquiry process (Fig. 3.1-2) to identify new or improved service offerings to attract new patients. Consumer Research and Listening is used

to assess the extent to which current service offerings meet or exceed prospective patients/stakeholders’ needs, including those of competitors’ customers. BU-tailored approaches, such as focus groups, are used by Marketing to provide greater insight and to identify and prioritize opportunities for expanding relationships with new or existing patients/stakeholders.

Trends gathered by Planning and Marketing Departments on health care utilization, customer listening and learning, and patient preferences guide determination of key patient and stakeholder requirements (Fig. P.1-7). During the SPP and OPRs (2.1a(1) and 4.1b), the BU, pillar, and SI teams and PC discuss these data to identify differences across market segments and stages of patients’ relationship with us. This routine review enables the teams to design processes that respond to changing customer needs (6.2a(1)). Patients, community members (including potential patients), and other stakeholders also participate on design teams to provide input. This ensures we design health care services that respond to changing patient expectations, as well as attract new patients. For example, before HF-WBH patient rooms were built, more than 2,000 people – medical staff, patients, families and community members – toured prototype patient rooms to evaluate the facilities (such as room configurations, furniture, and equipment). More than 70 design changes were made based on extensive feedback. The same feedback was incorporated into renovations at HFH in 2009.

A Meds to Beds program was established in 2004 to improve patient satisfaction and medication compliance at one of our dialysis centers. Since then, pharmacy services have been expanded to provide bedside/chairside delivery to our dialysis centers, oncology patients, EDs, and IP discharges at HFH and HFWBH and to school-based health clinics. We continue to further deploy personal delivery across the System.

HFMG’s PCTC, modeled after Advanced Medical Home research, was created and then spread across HFMG centers to better manage care of patients with chronic diseases. PCTC puts responsibility for important aspects of self-care and monitoring in patients’ hands, along with the tools and support they need from physicians and case managers to define and implement individualized care plans. The PCTC model ensures that transitions between providers, departments, and health care settings are respectful, coordinated, and efficient.

3.2a(2) Patient and Stakeholder Support. SL uses the SPP (2.1a(1)), OPRs (4.1b), and the MFI (Fig. 6.1-2) to design and improve key mechanisms to support use of health care services. Our customer listening methods (Fig. 3.1-1) are supplemented with community focus groups and other research to ensure our initiatives and designs meet patient and stakeholder needs (3.2a(1)). We know from primary care market research that key customer requirements (Fig. P.1-7), regardless of the customer’s age, gender, or geographic location, include being seen within 24 hours of getting sick, so improving access to physician appointments remains a priority for HFMG. Key support requirements are communicated and deployed to all staff through employee orientation, annual education, and internal communications, and to specific groups as needed through training and partner meet-

ings. BU or segment-specific support requirements are also deployed through the BU Service Excellence teams.

Our size and stakeholder diversity demand multiple mechanisms to support the use of health care services, including personal interactions, mail, phone, the Contact Center, community outreach, and 24/7 Web-based health information through our personal health page portal, MyHealth (Fig. 3.2-1). The Contact Center and website represent recent innovations to support our patients and stakeholders and their changing requirements.

Fig. 3.2-1: Patient and Stakeholder Support Mechanisms

METHOD	STAKEHOLDERS SEEKING INFO.	STAKEHOLDERS UTILIZING SERVICES
Letters	PT, PU, C	–
Web, including MyHealth	PT, PU, C	PT, C
Contact Center	PT, PU, C	PT, C
Interpreter Services	PT, PU, C	PT, C
Providers	PT, C	PT, C
Patient Advocates	PT, C	PT, C
Publication, mailings	PT, PU, C	–
Patient/Family Orientation/Educ.	PT	–
Television / Radio	PT, PU, C	–
Support Groups	PT, C	PT, C
Community Outreach	PT, C	PT, C

Stakeholders Key: PT = Patients & Family Members, PU = Purchasers, C = Community Organizations

Using market and customer satisfaction data, the Marketing Department and SE Leaders identified convenient access by telephone and Web as an important patient and stakeholder requirement and potential growth opportunity. As a result, HFHS implemented a centralized Contact Center and has continued to make improvements to better meet customer needs. It is staffed by advocates who respond to inquiries using scripted greetings and defined protocols to schedule appointments, verify insurance, and provide other information about services for patients, physicians, and employees. They also assist with problem resolution and arrange lodging, language/hearing-impaired interpreter services, and transportation.

Through our listening approaches, we determined that the Web, available 24/7, is a key mechanism for seeking information and using services (3.3 million visits to henryford.com in 2010). Since its inception in 1999, MyHealth has been used by more than 50,000 patients to interact with physicians and office staff for lab and test results, prescriptions, appointment scheduling, and e-visits. E-visits are available at all HFMG clinics and provide virtual medical consultations using online patient interview algorithms. Patient responses are reviewed by a physician to make clinical decisions and treatment recommendations. This innovation enables patients to receive consultation on more than 6,000 health issues without an appointment. MyHealth is integrated with the patient's record to document all electronic communications. Other offerings on henryford.com include the HFHS Health Products e-commerce site, Pharmacy Home Delivery for new or renewed medications, and online mammogram appointment scheduling.

To address and consider each patient's expectations, we use customer listening/learning to design services that meet specific patient needs. For example, the Detroit metro area has the largest Arabic population in the U.S. To better serve this commu-

nity, Arabic-speaking female providers are available for female patients and Arabic translation is provided on our website. The site also helps patients select compatible providers. For patients and other stakeholders without online access, many other access mechanisms are available (Fig. 3.2-1). Key communication methods include direct mailings from physicians, such as those made available through the Healthy Living Senior program (3.2b(1)). Quarterly, patients and other customers receive brochures and invitations to conferences targeting relevant health care topics, such as the HAP Wise Woman program (3.2b(1)). Routine System communications (Fig. 1.1-2) help deploy new services and ensure processes remain aligned with THFE.

3.2a(3) Patient and Stakeholder Segmentation. Annually, HFHS Planning and Marketing Departments identify current and prospective market segments by analyzing patient origin data (ours and competitors'), employer group data, service area demographics, incidence of disease in our target market, and trends in similar markets nationwide. Planning develops analyses of geographic markets and estimates potential patients in the market (competitors' patients and HAP members who are not currently HFHS patients). This information is used as inputs to **Step 2** of the SPP. The PC routinely monitors market performance, identifying target market segment opportunities, tracking and reporting progress, and measuring results. Examples of using patient and market data to identify new segmented service offerings include:

- Building a dialysis unit on the HFMD campus in an area showing a significant increase in end-stage renal disease.
- Building HFWBH in an area of strong growth and high patient demand for IP services.
- Building the Henry Ford Medical Center–Brownstown in a growing community that has few OP health centers in a five-mile radius.
- Building an OptimEyes SuperVision Center in Oakland, an area of strong population growth.

The HAP Marketing department identifies prospective employers each year using databases segmented by geography, employer size, and industry type. For new markets, HAP reviews demographics, businesses and industry, population, and estimates of potential employees to determine growth opportunities.

3.2a(4) Patient and Stakeholder Data Use. PG (3.1b(1)) provides useful interpretive data, such as priority index—items most highly correlated with satisfaction—to provide focus on service concerns. HFHS leaders use data from market research and customer meetings to increase patient, family, and community focus, improve marketing, and identify innovations. Patient, family, employee, and community advisory boards identify service concerns, innovation opportunities, and product/service gaps. HCAB, Sg2, NRC, and the EA are reviewed by PC to build a more patient-, family- and community-focused culture with more targeted marketing priorities. Opportunities for breakthrough or innovative improvement are identified during OPRs (4.1b) at regular PC, pillar, and other leadership and improvement team meetings. This results in targeted service offerings to patient segments such as our new CCS Self-Health Centers, where we offer chronic care programs to meet the ongoing physical, psycho-social, emotional, and spiritual needs of the patient. These programs

are managed and monitored by Self-Health Coaches (SHCs) who provide motivational support and assist patients with patient education, nutritional guidance, and support groups.

When HAP surveys and focus groups indicated our customers often could not leave work to see a specialist, HFMG introduced options for evening and weekend specialty appointments. Over the first several months of these new hours, 91.7% of available patient appointments were booked in the early morning, late evening and on weekends.

Marketing tracks responses to advertising campaigns to determine how to best communicate services to patients and make information accessible. Through web user analysis, CRM return on investment (ROI) analysis, and NRC preference studies, Marketing can gauge its effectiveness and improve services to build a more patient and stakeholder-focused culture. We use customer feedback obtained through market research and advisory groups and pilot and review new techniques from inside and outside of health care. Yearly, the PC, with input from Marketing and the SE Leaders, evaluates listening and learning methods based on usage, results, and accuracy of data, validating these against industry benchmarks and satisfaction with the vendor.

3.2b(1) Relationship Management.

Acquiring new patients and stakeholders. The PC, with BU leaders and Marketing, is responsible for identifying key target audiences, developing growth and relationship-building initiatives, and designing marketing plans to implement new business opportunities. For example, the following programs were implemented to create long-term relationships with two growing segments:

- The Healthy Living Senior program builds senior loyalty (age 55+) by establishing connections during non-crisis times.
- The WiseWoman program develops stronger relationships with female HAP members (age: 35-54) through targeted communications and special health-related events.

Meeting requirements and exceeding expectations in each stage of the relationship. As an integrated health system, HFHS is well-prepared to respond to requirements and expectations of patients across the continuum of care. Care coordination, a core competency, is critical to every stage of patient and stakeholder relationships: OP, IP, ED, and CC (Fig. P.1-7). Requirements and expectations vary at each stage based on demographics and health factors. We have built multiple processes and strategies to increase engagement in a competitive environment.

Increasing engagement. To ensure a consistent, integrated, and positive patient and stakeholder experience, we focus all team members on excellence across the pillars to create THFE. In addition to leveraging our core competencies (Fig. P.1-4), THFE is supported through the PMP, basing performance expectations on Leadership Competencies, Team Member Standards, and personal performance goals aligned with the pillars (5.2a(3)). Leader and workforce development plans identify the knowledge and skills required for high performance and a focus on patients and stakeholders (5.2c(1)). HFHS promotes a service culture through both employee engagement strategies and

System-wide tools and practices such as THFE reference pocket cards, daily huddles, and the Lasting Impressions Framework, which includes a standardized service recovery approach (Fig. 3.2-2). Specific courses throughout HFHSU provide training on these tools to ensure our employees deliver THFE. By the third quarter of 2011, the SE Leaders will complete deployment of the HFHS service culture philosophy to the entire workforce, including trustees, physicians, trainees, and volunteers through orientation programs and toolkits.

Fig. 3.2-2: THFE Lasting Impressions Framework

FIRST IMPRESSION	We will greet everyone with warmth, friendliness and a smile whether by telephone, computer, fax, or in person.
SERVICE DELIVERY	We will deliver high-touch care that is reliable, responsive and coordinated.
SERVICE RECOVERY (HEART)	Hear the concern or complaint Empathize with the customer Apologize regardless of the situation or fault Respond, reassuring the customer the problem will be addressed Thank the customer
LAST IMPRESSION	We will thank customers for choosing HFHS and invite them to call on us again.
EVALUATION	We measure our success by obtaining clinical excellence, customer satisfaction & positive business results.

SL continually deepens customer knowledge through the patient survey process (3.1b(1)), market research and patient focus groups, and participation in local and national benchmarking and research. The CPT keeps patient relationship-building methods current through our CHNA and planning processes (1.2c). SE Leaders use patient surveys, market research, and community needs assessments to determine if customer relationship approaches exceed expectations and build engagement. Based on analysis of these assessments, SE Leaders recommend improvements to current practices and action plans to the PC. Once improvements are defined, BU leaders are accountable for improving customer relationships and access mechanisms at the local level. Process changes are shared with the PC to monitor progress and support System-level learning.

3.2b(2) Complaint Management. A standardized complaint management process is used across all BUs, supported by RadicaLogic, an online system for reporting and aggregating compliments, comments, suggestions, and complaints. Feedback can be received in person, by phone, letter, e-mail or social media (Fig. 3.2-3, Step 1). Complaints are entered into RadicaLogic, routed to the responsible manager, tracked for resolution, and trended. Complaints are handled initially at the point of service and then reviewed at the BU level to promote efficient response and follow-up. More severe complaints are escalated to higher levels of leadership. SE staff at each BU oversee the entire compliment/complaint management process and ensure appropriate follow-up and service recovery. A System-wide service recovery policy makes service recovery everyone's responsibility. HEART (Fig. 3.2-2) is the model used in all service recovery efforts. Complaint feedback is aggregated, trended and analyzed by the CE Department Process Improvement Managers. This information is shared at CE meetings with SE Leaders, who work together to identify improvement opportunities across BUs and to share best practices. In addition, the Web Team social media expert monitors complaints made through social media to identify significant issues to be addressed. These are aggregated and provided to the appropriate SE leader for resolution.

Fig. 3.2-3: Complaint Management Process

STEP	ACTIONS
1	Feedback enters the System from letters, Website, Patient Advocates, SE Departments, inpatient rounds, employees and surveys.
2	Feedback is routed to online system: notification sent to department leader with direct responsibility for resolution; oversight by Service Excellence Teams or Patient Advocates for timely resolution.
3	Customer receives acknowledgement (by phone, email or letter), is thanked and informed that their complaint will be investigated, and a follow-up letter is sent within 7 days. Customer is contacted again with resolution.
4	Feedback report available to BU Leaders who review trends monthly and determine if process improvements are needed to address recurring issues.
5	If so, BU leaders charter process improvement teams; new processes are implemented and satisfaction monitored by the BU leadership team.
6	Trends in complaints across BUs are reviewed by the SE Leaders at monthly meetings. System-wide trends, best practices, and common complaint areas are discussed at PC; plans are executed by BU CEOs.

4 MEASUREMENT, ANALYSIS, AND KNOWLEDGE MANAGEMENT

4.1 Measurement, Analysis, and Improvement of Organizational Performance

4.1a(1) Performance Measures. In 2009, the MC was created to improve OPR and knowledge management. It meets monthly, co-chaired by the HFHS CFO and SVP Performance Management, and includes operational and functional leaders from each BU and pillar. To further develop analytics as a core strategy, an Operational Analytics (OA) Department was added in 2011. Roles are detailed in Fig. 4.1-1.

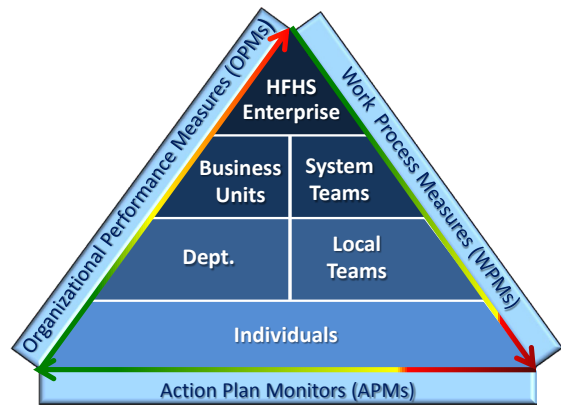
Fig. 4.1-1: Functions of MC and OA

FUNCTION	ROLE
MC	<ul style="list-style-type: none"> Provides oversight and counsel for development and refinement of performance metrics and dashboards at the System, BU, and pillar levels Promotes vertical and horizontal alignment and integration of the measurement system Advises/supports BU department leaders and improvement teams in selection and use of process metrics and action plan monitors in dashboards Ensures the proper infrastructure and technology are in place for gathering, reporting, analyzing and integrating data and information. Oversees the content and maintenance of knowledge management including the HFHS KW (a tool which allows the sharing of improvement projects (4.2a(3)).
OA	<ul style="list-style-type: none"> Provides the necessary infrastructure to ensure pertinent, accurate, and actionable information are available to decision makers.

Metrics are organized into three categories: 1) Organizational Performance Measures (OPMs), 2) Work Process Measures (WPMs) and 3) Action Plan Monitors (APMs). OPMs are selected each year by System or BU teams. The PC approves a final set of System OPMs (Fig. 2.1-2) in SPP Step 5 after review by the MC. The System dashboard is used to track OPMs monthly (4.1b). WPMs assess work process performance (e.g., access to services, supply chain management) against key process requirements (Fig. 6.1-3). WPMs are selected based on the knowledge needed to manage the organization, deliver patient care, and meet/exceed regulatory and accreditation requirements and industry standards. WPMs are updated annually by the MC

and BUs. WPM results are reported daily, bi-weekly, monthly, or quarterly, as required to manage operations. APMs assess progress of action plan tactics and monitor SIs and other PI efforts at the System, BU, and/or department level, and support effective decision making and execution (4.1b). OPMs, WPMs, and APMs are used at all levels of the organization (Fig. 4.1-2).

Fig. 4.1-2: Alignment and Integration of Measures



The MC uses criteria to guide selection of measures. All measures must: 1) align with internal/external customer requirements, 2) be readily collectible (automated collection is ideal), including balancing utility with the ease of data collection, 3) be easily understood and consistently defined, 4) be reportable at necessary frequency, 5) have sound comparative benchmarks or historical trends, and 6) be aligned with key initiatives or work processes so progress on the System SIs can be readily accessed and communicated (Figs. 2.1-2 and 6.1-3). Performance indicators must also have defined owners, a defined audience for reports and reviews, and clear accountability.

The annual process to review and select metrics for System and BU SIs (SPP Step 5) is as follows:

1. SI and work process owners review current metrics, using functional experts and the criteria as guides, and recommend continuation or alternative measures.
2. MC evaluates metrics against the criteria, recommending refinement to owners if necessary.
3. A metric scoping form is completed for each System and BU metric with measurement and reporting frequency, data source, and process and responsibility for data collection, including specific definitions.

Our IT systems support data gathering, OPRs, decision-making, and innovation (4.2a(2)). Whenever possible, these systems automate data-gathering and work processes, reducing reliance on costly and time-consuming chart reviews that can delay performance reporting. Selection and use of appropriate performance metrics and comparisons, along with identification and use of aggressive improvement targets, foster the search for innovative solutions to drive breakthrough performance. For example, review of positive patient engagement data at HFHBH led to deployment of the hospital's real-time service measurement system to other System hospitals (3.1a(1)).

4.1a(2) Comparative Data. Selection of relevant comparative data is an integral part of our overall measures selection process (4.1a(1), criterion 5). Comparative data (P.2a(3)) are used to

identify improvement targets for the System, BUs, and departments. Prior to selecting a comparison, we assess the comparative database to ensure: 1) best-practice or top-decile comparators are available 2) peer groups are similar in size or service to HFHS, 3) sample size is sufficient to draw conclusions, and 4) the compared organizations include competitors, health care high-performers, and role models from other industries (to support our innovation CC). Although availability of good comparative benchmarks is one of the criteria we use to select our performance metrics, there are times when initiatives involve innovative approaches for which comparative data are not yet available. In these cases, we benchmark other industries to identify comparative approaches and lessons to guide our action plans. If necessary, we use our own performance over time to set next-year goals until external comparisons become available.

4.1a(3) Patient and Stakeholder Data. We use data and information from listening and learning (3.1a(1)) at SPP **Step 3** to develop SIs. Key requirements are identified from patient survey data on the “top ten” areas most highly correlated with satisfaction. Service concerns and best practices are collected from surveys; patient, family, and community advisory boards; and complaints (3.2b(2)), and summarized for each department and BU. These data are reviewed during OPRs to understand opportunities for improvement or breakthrough innovation.

4.1a(4) Measurement Agility. SPP **Step 5** includes an annual review and update of the metrics to ensure meaningful evaluation of new and continuing initiatives. To further ensure agility, the MC may recommend additional measures or segmentation throughout the year based on new requirements, changes in the business landscape, or new priorities. To improve display of organizational performance, the MC has conducted multiple cycles of learning with the System dashboard, in place since 2007 (4.1b). We stay current with emerging measurement trends through participation in national and local improvement programs, such as the IHI 100K and 5M Lives campaigns, the IHI Improving Care at the Bedside collaborative, and MHA Keystone initiatives focused on hospital safety. In addition, senior leaders participate in or lead national organizations such as AHA, AMA, ACC, NCQA, and NQF, where they stay abreast of changing metrics and have the opportunity to shape future health care measurement.

4.1b. Performance Analysis and Review. OPR occurs as part of the Check step of the HFLS (Fig 1.1-1) in all HFHS entities. The PC reviews BU and System OPMs and APMs on a specific schedule, finalized at SPP **Step 5** (2.1a(1)). Standard APMs (e.g., on track, off track, not yet started) identify when corrective action is necessary. These indicators mirror those in the online PMP (5.2a(3)), ensuring alignment among System, BU, and individual action plans. System dashboard measures (Fig. 2.1-2) are reviewed by the PC monthly and BOT at every meeting to assess and communicate performance against SOs and action plans (Fig. 1.1-2). “Stoplight” color schemes on the System dashboard identify metrics at or better than the target (green), within 5% of target (yellow), or more than 5% behind target (red), allowing the PC to focus on SIs that are behind target. Drill-down capabilities allow the PC, other leaders, and individual workforce members to view dashboard data by BU or

pillar with a single click. Monthly dashboards showing OPMs and WPMs are available to the workforce on the intranet and through postings in work areas.

The OPR process, regularly repeated by the PC, BU/pillar teams, or departments/local teams, provides a forum for transparency, mutual accountability, and access to assistance with initiatives as needed. Success stories are also shared to identify and deploy best practices throughout the organization (4.2a(3)). OPR includes: 1) review of current results, including financial health, relative to target, 2) review of action plans and APMs, 3) celebration of progress 4) review of root causes of stagnated or declining results, 5) discussion of action plan adjustments and assistance needed from other areas, and 6) documentation to spread innovations and opportunities for improvement. The OPR process for individuals occurs as part of the PMP during mid-year and annual reviews (5.2a(3)), when progress to SMART goals is assessed and individual action plans are modified to ensure goals are met.

A wide variety of analytic techniques help guide teams as they identify opportunities for improvement and implement changes. These include fishbone diagrams, Pareto charts, run charts, control charts, trend lines, and “stoplight” indicators. Teams are encouraged to identify balancing metrics to test for unintended consequences (such as the impact on patient satisfaction of hourly nursing rounds to assess fall and pressure ulcer risks). Graphical displays with control limits, or data trending on run charts, help identify when variation is “common cause” (requiring no action) or “special cause” (requiring action be defined and taken).

Communication of OPR findings to improvement teams, workforce members, partners, and collaborators as needed ensures ongoing dialogue about lessons learned and opportunities to change direction or spread successes (Fig. 1.1-2). In addition, comparisons to targets, prior period trends, competitors, other external benchmarks and like-organizations (inside and outside HFHS) help ensure that conclusions and any changes are based on valid assessments. Frequency of reviews at all levels, identification of corrective actions, and communication and follow-up allow us to respond rapidly to changing needs and challenges at all levels and facilities.

4.1c(1) Best-Practice Sharing. Knowledge to improve and innovate (4.2a(3)) is identified through OPRs (4.1b) and other mechanisms for best-practice sharing, such as internal communications (Fig. 1.1-2) and the KW (4.2a(3)), with its summaries of PI projects and related materials. For example, OPRs at the No Harm Steering Committee (NHSC) promote effective cross-BU sharing. Each hospital shares progress on reducing harm, such as how specific supply sourcing and standardization of urometers reduced catheter-associated urinary tract infections. Learning from each other is part of our THFE culture, reflected in our core value of learning and continuous improvement.

4.1c(2) Future Performance. Process requirements are defined and expected levels of performance are projected using the MFI and action planning processes. Data from OPRs are used to project future performance by setting goals for the next three years as part of SPP **Step 5** (2.1a(2), 2.2b). Targets are set based on customer and other external requirements, and stretch

targets based on top-decile performance of comparison groups. Projections are estimated twice per year as part of OPR to determine if action plans are on track.

4.1c(3) Continuous Improvement and Innovation. OPRs at every level provide opportunities to identify innovations and breakthrough improvement to achieve SIs (4.1b, 4.1c(2)). As new SIs are developed and modified (usually annually, but new strategies can be adopted throughout the year), teams are identified and made responsible for developing action plans to support short- and long-term OPMs. New initiatives are cascaded as appropriate through System and BU leaders, next-level managers, and front-line supervisors. Our PMP allows individuals to add or modify performance goals to reflect new initiatives any time during the year (5.2a(3)). Other sources of innovative ideas include industry or professional society conferences attended by team members, ongoing literature and market scanning by BU and functional experts, and the KW (4.2a(3)). Employees are recognized for sharing ideas and lessons from improvement work throughout the year, in particular at the annual Quality Expo (6.2b(4)).

The MFI is used to identify root causes, make improvements, and monitor performance (Fig. 6.1-2). When appropriate, initiative results and emerging ideas are shared and discussed with our partners and suppliers to clarify the intent of the initiative, their role in effecting change, and the results achieved to date (4.2a(3)). For example, our suture supply vendors work with the surgery value analysis team (VAT) to reduce costs per net revenue of surgical supplies. We use patients and their families as members of several improvement teams to learn from them how to create patient- and family-centered care experiences.

4.2 Management of Information, Knowledge, and Information Technology

4.2a(1) Properties. Fig. 4.2-1 depicts our approach to managing organizational data, information, and knowledge within our principal IT systems to ensure key quality properties. We follow a process of continuous prevention, detection, and remediation based on the MFI (Fig. 6.1-2). Workforce members and stakeholders participate in root cause analyses and identify corrective actions. Cycles of learning include implementation of new technology, process improvements, and investments in staff training and upgrades, as well as IT governance and quality assurance functions. For example, the IT Root Cause Analysis process showed need for a new change management approach for partners and suppliers, which was implemented in 2010.

Fig. 4.2-1: Ensuring Critical Properties of Organizational Knowledge

PROPERTIES	PREVENTION	DETECTION	REMEDATION
Accuracy	Change management enabled via system testing & UAT Data testing and cross validation	Users report through IT Help Desk	Root cause analysis
Integrity/ Reliability	High availability redundant solutions Data backups; disaster recovery capabilities Input/output validation checks Maintain & refresh infrastructure, application releases	Infrastructure monitoring tools	Response and resolution time SLAs (warranted to include liquidated damages for failed performance)
Timeliness	Performance testing Real-time enterprise system updates User access via wireless and remote access	External audits Internal QA	Follow-up with end user to ensure remediation
Security and Confidentiality	Data center physical security Firewalls; password/user IDs HIPAA BAA; annual risk assessments; workforce training Security management continuous improvement program Data masking		

New market and competitive information is gathered from trusted third-party sources, such as Sg2, HCAB, and EDS (2.1a(2)). These sources employ their own data cleansing and data masking processes to ensure integrity, security, and confidentiality. Data are gathered from multiple sources for comparison to ensure reliability. Both current and historical data are used to test trend validity. Survey and feedback data from patients and employees are tested for accuracy, reliability, and integrity by comparing to national databases.

4.2a(2) Data and Information Availability. Our approach for making needed data and information accessible to our stakeholders is outlined in Fig. 4.2-2. IT supports the enterprise (workforce, stakeholder groups, suppliers, partners, and collaborators) by offering a complete range of infrastructure services (e.g., voice and data network services, data center operations, desktop devices, mobile devices) and application maintenance and development services. These capabilities are delivered to end users via a secure, redundant network that supports wired and wireless computing, as well as remote access for authorized users. These solutions provide easy access while keeping data, applications, and infrastructure protected through state-of-the-art security.

Managing patient-care coordination and collaboration.

HFHS caregivers and community hospital private-practice/contracted physicians can access a clinical data repository (CarePlus Classic) where more than 22 years of information for more than five million patients is stored. CarePlus is innovative in that it provides both IP and OP data on our patients. Physicians can share clinical information with patients during face-to-face clinic visits or through secure electronic message exchanges during e-visits. An integrated network of clinical information exchange within HFHS connects the clinical data repository and specialized departmental applications (e.g., radiology, laboratory, ED, surgery, cardiology). These data are also processed through a clinical rules engine from a patient registry that provides real-time preventive screening reminders and chronic care clinical alerts to ensure timely, evidence-based care. While other organizations have implemented registries like this for patients with one particular type of insurance, HFHS implemented this enterprise registry for the benefit of all our patients.

HFHS has rebuilt and expanded CarePlus to include collaborative care management, structured clinical documentation, and quality reporting. This new enterprise EMR solution, CPNG, has a common platform of normalized data from over 150

sources. Normalizing the data allows us to share information with other systems for analytics. We have also implemented tools geared toward optimizing care, throughput, and processes in particularly challenging areas, including EDs, ICUs, and Surgery. Beginning in 2011, CPNG has an interface to a private health information exchange which allows private practice/contracted physicians to share information through the HFPN Physician Portal.

Fig. 4.2-2: Data & Information Access

Users	Access / Availability via	Type of Data / Information
Patients	Henryford.com Patient portal Email Op/IP visits Internet cafe Phone Print, radio, TV Focus groups	Electronic Health Record Appt./prescription requests Messages to-from physicians Lab and radiology results Care plans Chronic care reminders/alerts Disease/wellness information Statements, payments Insurance claims, claim status
Community & Collaborators	Henryford.com Print, radio, TV Focus groups	Physicians, specialties Disease/wellness programs Community health partnerships Locations and services Care innovations News and information
HFHS Clinicians	Henry Physician portal Email Secure private network Secure remote access Secure wireless Mobile devices Kiosks Vodcasts, podcasts	Enterprise systems CarePlus, EMR Crimson Analytics, CDS Quality metrics Performance dashboards Messages to/from patients Lab and radiology results Alerts and reminders Email/file/print HFHSU and CME/CEU News and information Policies and procedures
Workforce	Henry Employee self service Email and mobile devices Secure private network Secure remote access Secure wireless Kiosks Vodcasts, podcasts	HFHSU HR/payroll/benefits Enterprise systems CDS Performance dashboards Departmental systems Email/file/print
Private Practice Physicians	Physician portal Health information exch. Henryford.com Secure wireless Mobile devices Internet cafe	EMR Disease registry Lab and radiology results News and information CME Physician scorecard
Suppliers/ Partners	Henryford.com Vendor Compliance Program Secure private network Email, phone Internet cafe Conferences	Policies and procedures Electronic transactions Performance dashboards News and information Programs and Innovations

Managing PI and supporting clinical research. Through a highly integrated CDS, which contains clinical, revenue, and cost information from all HFHS BUs, as well as a separate reporting interface from CarePlus, we can conduct comprehensive program reviews; develop dashboards to facilitate performance measurement, analysis, and improvement; and provide a repository for clinical research. Data are available for process analysis and improvement within minutes of being posted to CarePlus in the clinical setting. The CDS warehouses data from systems supporting registration, billing, lab, and radiology. These tools are accessible by all HFHS workforce members through password-protected log-ins. The CDS is the basis of the System dashboard (2.2a(6)). This analytical capability is being extended in 2011 to include physician- and hospital-level dashboards.

Managing the revenue cycle. Through HFHS enterprise-wide systems, CSRs in any clinic or contact center can view physician appointment and procedure availability across multiple sites, identifying times and locations most convenient for each patient. Registration and insurance information are collected once (when a patient first enters the health system), and updates to demographics and insurance coverage can be made at the time the patient is seen. Charges are billed to insurance payers electronically.

For HFMG medical center patients receiving services at HFH, HFWBH, and some community hospitals, an innovative single statement is generated that combines IP and OP charges, as well as professional and technical charges, simplifying compliance with payment requirements. Patients can request an electronic statement or pay online using our Consumer Health Portal.

Managing the business. Through enterprise-wide HR, Finance, and Supply Chain systems, HFHS leverages automated financial and resource management controls and tools, and extensive online reporting. Employees use self-service tools to update personal information and change benefit status, while managers use them to process virtually all employee-related HR transactions. Managers create and route purchase requisitions online. IT systems transitions supported the HFMH acquisition in 2007 and HFWBH launch in 2009, and IT revenue systems were significantly improved to standardize revenue-cycle transaction processes at our hospitals.

Managing employer-based insurance products. HAP utilizes state-of-the-art systems for managing the unique business operations of the payer organization, including member enrollment, billing, claims payment, and disease and utilization management for its members and provider organizations. HAP's insurance systems are intentionally managed separately from the patient care facilities to ensure confidentiality for non-HFHS providers.

4.2a(3) Knowledge Management. The enterprise systems described in 4.2a(2) are the principal knowledge assets used to enable coordinated patient care, provide data for PI analysis and research, support the revenue cycle, and manage the business. These repositories of knowledge are accessible to all workforce members, as authorized, for cross-training and knowledge transfer via kiosks, desktop computers, wireless devices, online through HFHSU, and remote access using automated tools to analyze and present information.

Information and knowledge is shared with patients and family members in print and through other mechanisms in the patient-care setting. We also share information and knowledge with patients, customers, partners, and collaborators through our internet (henryford.com) and intranet (henry.hfhs.org). As described in 3.2a(1) and 3.1a(2), patients, community members (including potential patients), and other stakeholders receive direct mailings from physicians or brochures and invitations to participate in conferences and design teams targeting relevant health care issues. In addition, HFHS uses television and radio broadcasts to reach a broader audience and share information about the System's health care advances. Often, these stakeholders are invited to participate in the design of key work processes. The KW provides a systematic and secure way to capture and share best practices. The KW currently houses best-practice repositories from both internal and external sources such as IHI, and includes three years of HFHS Quality Expo projects and a number of PI team outcomes. By making the KW available to all members of the workforce, as well as partners and collaborators as appropriate, groups with common roles or interests have ready access to projects, research, and best practices within the System to rapidly identify and share best practices for implementation in their organizations.

Knowledge Management includes information to accomplish work, such as policies, procedures, and job specific training; improve and innovate once an opportunity is identified through the OPR; and address changing organizational needs as part of **Step 2** of the SPP (2.1a(1)). Under the direction of the PC, and in response to OPR findings, pillar and other System teams are formed with cross-organizational representation to innovate and improve key processes or work systems (6.2b(4)).

4.2b(1) Hardware and Software Properties.

Infrastructure. To protect, secure, and ensure the reliability of HFHS information and knowledge, we deploy proven technologies supported by a trained technology team.

- The data center physical plant and the computer room technologies are protected by intelligent key card access, sign-in/sign-out procedures, and video monitoring.
- Firewalls, intrusion detection tools, email monitoring and filtering capabilities, and automatic security patches for servers and desktops protect against cyber attacks.
- Data encryption secures sensitive outbound information, such as email with electronic patient information.
- Automated alert systems and monitoring tools notify technical support personnel if a database, application, network, or server exceeds performance thresholds.

Reliable telephone communications for patients, employees, suppliers, and partners are enabled by a three-tiered network. Voice circuits and software provide service to multiple contact centers using interactive voice response (IVR) and skills-based routing tools. Siemens, our infrastructure services provider, serves as the custodian of our environment through a long-term partnership agreement. Through comprehensive service-level agreements (SLAs), Siemens is contractually committed to 99.99% system availability and prompt IT Help Desk response and resolution (Fig. 7.1-41). HFHS IT and business managers review operational performance results regularly with the Chief Information Officer (CIO), who reports concerns to the PC.

Applications. All HFHS IT systems are either purchased commercial products licensed through a competitive procurement process or applications designed and developed by our IT application partner, CSC. IT employs extensive user collaboration to define requirements. Users evaluate alternatives, configure vendor products, and assist in the design, build, and implementation of in-house solutions. To ensure user-friendliness, IT utilizes various user groups such as Patient Advisory Groups and the eHealth Steering Committee and the Clinical Systems Steering Committee (physicians and other caregivers) to gather feedback regarding ease-of-use, reliability and integrity. CPNG includes an innovative “Feedback Button” to provide immediate feedback at the point of patient care. The applications development team analyzes this feedback to incorporate system improvements. In addition, IT oversees systematic user-acceptance testing (UAT) when implementing system improvements and new releases. Users interact with the system to evaluate functionality and usability before the “go-live” decision is made. Intensive end-user training, business process re-engineering, “go-live” support, and rapid problem call resolution by the IT Help Desk are incorporated into each installation.

4.2b(2) Emergency Availability. The IT disaster recovery (ITDR) program is part of HFHS’s overall emergency readiness program (6.1c). It ensures rapid recovery of all critical systems. We employ both local recovery capabilities and a remote warm site through a third-party vendor. A number of progressive improvements have been implemented, such as our three-tier redundant network with geographically separated hubs. This prevents the network from crashing if one or the other site is disabled, further ensuring data integrity and prompt system recovery. Major upgrades to backup and recovery technologies were completed in 2009.

The design of CPNG includes a unique high availability/ failover architecture to ensure this critical tool is available and accessible 24/7 for both IP and OP care. IT ensures constant readiness and the effectiveness of ITDR capabilities by testing at least annually. Business continuity capabilities are tested throughout the year during scheduled system downtime. Numerous process improvements identified through testing have been implemented: enhanced Incident Response Management process and procedure, updated “call-trees” for IT and the user community, validation of recovery plans for over 200 non-critical business systems, and end-user participation in system recovery. A new ITDR test scorecard monitors DR capability and helps identify improvement opportunities. Finally, in response to pandemic concerns in 2009 and 2010, a comprehensive pandemic preparation effort was coordinated with the System’s Hospital Incident Command System (HICS) program (6.1c). Following each incident, results were evaluated to identify and implement improvements.

5 WORKFORCE FOCUS

5.1 Workforce Environment

5.1a(1) Capability and Capacity. HFHS assesses workforce capacity and capability during the SPP, OPRs of workforce metrics, and annual PMP and development planning processes (Fig. 5.2-4). During the SPP, the PC reviews HR’s analysis (expected growth, vacancy rates, turnover, future competency forecasting, training needs, staffing ratios and quality indicators) (Fig. 2.1-1, **Steps 1-2**). This drives People pillar SOs, SIs, and action plans (**Steps 2-6**). Each month, the PC, BU leaders, and HRET review System and HR dashboards as part of OPRs (4.1b). Requests for new positions are evaluated by BU leadership teams against budget requirements, staffing ratios, and business plans, including growth and expansion SIs. Action plans address skill shortages, existing competencies and gaps, succession planning, pipeline development, diversity needs, and onboarding to improve retention (Figs. 7.3-2 – 7.3-4). Physician capacity analyses incorporate current and projected patient volumes, new clinical service needs, and quality measures. In 2009, HRET created a pilot workforce plan for System Pathology and Lab, forecasting 10-year needs. Based on key learnings, HRET is applying a new workforce planning strategy and guidelines to other critical areas. We are also piloting a staffing model to move HFHS to a more flexible blend of fixed and variable human capital resources, easily adapted to changing staffing needs. Talent Selection Specialists (TSSs) and HR Business Partners (BPs) work with System and BU teams on staffing and capacity changes. In 2010, based on Baldrige feedback, HFHS implemented a System-wide process to track volunteer demographics, time, activities, and assignment trends.

5.1a(2) New Workforce Members. In 2010, based on results and feedback from applicants and hiring managers, we enhanced recruitment, hiring, placement, and retention approaches System-wide. On-site TSSs partner with hiring managers to understand local requirements and cultural needs, and ensure right person/right job/right time. We also assess quality-of-hire and new-hire satisfaction (AOS).

Recruiting, hiring. HFHS uses traditional and non-traditional methods and sources to attract talent: college recruiting, internships, volunteers, on-site job fairs, student career days, employee referral bonuses, job boards, social media and networking sites, niche organizations, optimized search engine capabilities, and a national online presence. We use interactive recruiting tools and automated job marketing to target potential employees. Referral sources include employees, volunteers, physicians, and patients. Our applicant tracking system has separate portals for key workforce segments. Managers receive status reports for each opening, and senior leaders receive monthly summary data (System, BU) on open positions, days to fill, and vacancy rates (including physicians) (Figs. 7.3-1 and 7.3-2). To recruit HFMG physicians, we solicit referrals and use online campaigns, announcements within physician communities, and presence at relevant conferences. Volunteers are recruited through internal referrals or community relationships; interviewed, selected, and oriented using System-wide processes; then placed after mandatory training based on skills, desired schedule, and BU need.

Retaining. We promote retention System-wide through behavioral-based interviewing, consistent placement and onboarding processes, and ongoing reinforcement of our vision and culture, THFE, performance expectations, and robust reward structures. Supported by HR, managers review results of Gallup surveys (5.2b(1)), exit interviews, and focus groups to formulate and execute department-specific action plans to reduce turnover (Figs. 7.3-3 and 7.3-4). Career development opportunities, such as HFHSU and the leadership academies, build employee skills and incorporate mentoring relationships that further promote retention (5.2c(1,4)).

Ensuring diversity. To ensure the workforce reflects our communities, we develop diverse candidate pools from employee referrals, community outreach, and organizational partnerships. In areas of under-representation, Talent Selection Team (TST) and Office of Workforce Diversity (OWD) collaborate on outreach to community organizations, local churches, and online diversity job boards. HFHS actively promotes health care careers through a community consortium with the Detroit Workforce Development Department, Henry Ford Community College (HFCC), and other innovative partnerships:

- **Hire Detroit:** With community development organizations, source entry-level talent for jobs with competitive pay and benefits.
- **Henry Ford Early College:** With local schools and HFCC, prepare students for health care professions (1.2c(1)).
- **Professional Development Program:** For entry-level employees wishing to advance to professional positions.
- **Annual Diversity Celebration:** Link HFHS and community partners to celebrate diversity, promote health care careers, and grow diverse feeder pools.

5.1a(3) Work Accomplishment.

- We **organize work** around fundamental processes on which we overlay key leadership structures, such as the PC, pillar teams, and LEAP, creating a cross-functional, collaborative culture. Continual focus on THFE enables us to accomplish our work (Fig. 6.1-1) and address challenges by implementing System and BU action plans (2.2a(1,2)) and the PMP (5.2a(3)).
- We **capitalize on our CCs** of innovation and collaboration by aligning and cascading goals through the PMP.
- We **capitalize on our CC** of care coordination to reinforce our focus on delivering exceptional care to each patient; by setting bold goals (6.1b(2)) and sharing best practices (4.2a(3)), we **exceed performance expectations** routinely.
- We use our learning academies and other HFHSU offerings to build team-based skills (5.2c(1)) and empower the workforce to leverage our capabilities in ways that **exceed performance expectations** and differentiate us from competitors (3.1b(1,2)).
- We **address our strategic challenges** through organizational performance and dashboard reviews (4.1b) and deploy multidisciplinary teams to address and accomplish action plans.

5.1a(4) Workforce Change Management. Prior to opening HFWBH, we redesigned our recruitment, orientation, and communications processes to ensure System capacity and capability needs were met as we staffed the new facility and encouraged existing employees to consider redeployment options. With Lean tools, we reduced HFWBH time-to-fill, dramatically improving vacancy rates, a best practice adopted System-wide (Fig. 7.3-2). We prepare our workforce for changing capability and capacity needs by conducting regular gap analyses and designing training for workforce segments with the greatest need. When faced with the need for workforce reduction, HR and managers partner on placement solutions that leverage our size and integration to redeploy talent internally. We conduct adverse impact analyses and match deployed individuals to positions that are specifically suited to their qualifications and talents. We assist displaced employees with resume development, interview techniques, and career counseling. A displaced employee who leaves HFHS receives a generous severance, may be recalled for up to one year, and if rehired within two years, re-acquires prior seniority. We prepared for and managed periods of rapid workforce growth at HFWBH and HFWH by conducting workforce planning sessions with HR, finance, and department leaders. These strategies reduced agency staff use (Fig. 7.3-2) and established new best practices for System deployment as we continue to grow.

5.1b(1) Workplace Environment. Fig. 5.1-1 shows key measures and targets for workplace health, safety, and security.

Workforce health. All workforce members undergo pre-placement health screening that creates a baseline for annual health status monitoring by Employee Health Services (EHS). System-wide policies and processes address TB exposure, immunizations, and respiratory fit testing (Fig. 7.3-5). HFHS partners with HAP to offer Health Engagement (HE), a health benefits approach that ties employees' clinical results and healthy behaviors to lower premiums. Participants meet with a primary care physician

Fig. 5.1-1: Workforce Health, Safety, and Security

	MEASURE	TARGET	FIG. REF.
HEALTH	% of patient-contact work-force immunized against flu	Exceed CDC national average rate	7.3-5
	Workplace wellness program participation	Year-over-year increase	7.3-6
	HRA Lifestyle scores	Year-over-year increase	7.3-6
SAFETY	MIOSHA injury frequency per 100 workers	Year-over-year reduction	7.3-7
	Workers Compensation outcomes	Cont. improvement; level below MI industry	7.3-8
	BBP/OPIM sharps injuries	Cont. improvement; level below MI industry	7.3a(2)*
SECURITY	Public order incidents	Year-over-year reduction	7.3a(2)*

(PCP), complete an online health risk assessment (HRA), and access recommended wellness interventions in an online System Wellness Resource Guide (Figs. 7.3-6). Wellness programs are available to employees, physicians, trainees, and volunteers.

Workforce safety. We manage workplace safety through System-wide processes and a network of Safety Officers and multidisciplinary Safety Committees, all aligned through the SESF. Supervisors receive consistent training and are responsible for accident investigations and documentation of interventions in the Radica-Logic incident reporting system. AHA awarded HFHS a safety fellowship to explore innovative ways to increase employee reporting of both workplace safety incidents and “near-misses,” an initiative that aligns to our No Harm campaign (7.3a(2)*). All employees must demonstrate mastery of three safety modules in AME (general safety, personal safety, and infection control); compliance is 100%. System-wide, we require regular fire and building evacuation drills, and department- and job-specific safety training, such as proper use of personal protective equipment and handling dangerous materials. We offer a System-wide health assessment program, recognized by the AOHPH, for employees who handle chemotherapy drugs. Consistent with our safety focus, we were first in our region to require all patient-contact employees to receive the seasonal flu vaccine or wear a protective mask when working with patients (Fig. 7.3-5). Our BBP/OPIM program reduced sharps injuries among clinicians served by our largest EHS clinic and was expanded to all System EHS clinics (7.3a(2)*). EHS treats work-related injuries at consistently lower than state costs (Fig. 7.3-8).

Workforce security. HFHS security police have a presence on each campus. Building and parking lot security is maintained with photo identification, card-access doors and gates, staffed security posts, surveillance cameras, and vehicle patrols. We partner with WSU campus police to expand employee, patient, and visitor security at HFH, and with local municipalities to ensure cooperative policing at other HFHS locations. Security staff provide BU leaders with monthly data on security incidents, and work closely with each BU Safety Committee to resolve problems and increase security (7.3a(2)*). Our CHRO is on the board of Crime Stoppers-Detroit, a program that empowers people to make their neighborhoods, schools, and businesses safer by anonymous crime reporting. Deployed at each BU, our workplace violence policy also promotes workplace safety and security.

5.1b(2) Workforce Policies and Benefits. Our policies are reviewed and updated annually, or as necessary, by cross-functional teams with HR leadership and are posted on our intranet for easy employee access. We support the workforce with flex-

ible, integrated benefits and services for all full- and part-time, benefit-eligible employees and other rewards to private-practice physicians, trainees, and volunteers. We use employee feedback and benchmark data to design programs for a diverse workforce (Fig. 5.1-2). Eligible employees receive credits to select benefits tailored to their individual needs. We systematically evaluate and improve our Total Rewards program through annual surveys and employee focus groups (Fig. 7.3-9). In 2011, we reinstated employer matching contributions to our retirement savings plan, implemented a salary increase program, and absorbed nearly 50% of employee health care cost increases based on employees’ input and our strong financial results. HAP’s Health Engagement product (5.1b(1)) enables us to offer tailored benefits while lowering employee health care costs. In its first year of implementation, more than 85% of HAP-covered HFHS employees met health qualification standards and received lower co-pays and out-of-pocket costs. Our focus on workforce wellness improves employee health and productivity while lowering costs (Fig. 7.3-6). An advisory team of HFMG physicians systematically analyzes employee claims data from HAP to identify opportunities to impact employee and family health, and works with HR leaders on design of benefits and wellness programs. All workforce segments, including trainees and volunteers, can access wellness programs. We address differing workforce needs with tailored benefits and services. We provide complete immigration services for our international workforce. An integrated EAP process supports employees facing personal or professional challenges. Major SEM employers have engaged HFHS to provide their EAP, evidence of our program’s quality and effectiveness. We negotiate with area businesses on employee discounts and savings offers. Innovative “Live Midtown” provides employees financial incentives to buy, rent, or improve housing in Detroit’s economically challenged Midtown area, home of HFH, HAP, and HFHS’s headquarters (1.2c(2)).

Fig. 5.1-2: Workforce Benefits

FOCUS	BENEFIT PROGRAM
Health & Wellness	Low-cost medical, vision, dental coverage; flexible spending; preventive care waivers; wellness program, fitness center; transitional work program; HRA,* ergonomic assessment,* healthy café food choices*
Financial	Retirement savings plan; income replacement & survivor benefits; LT care; credit union, discounted bank services*
Work-Life Balance	Generous paid time-off; personal protection insurance; same-sex domestic partner benefits; child care*; adoption assistance; immigration services; EAP,* teleworking, flexible scheduling,* Helping Hands*
Professional Development	Tuition reimbursement; mandatory training,* continuing education,* employee & leader development *

*Available to private-practice physicians, trainees, and/or volunteers.

5.2 Workforce Engagement

5.2a(1) Elements of Engagement.

We select well-researched survey tools from widely recognized vendors, thereby leveraging their research on key elements affecting workforce engagement and satisfaction: Gallup Q12 for employees, AMGA survey for HFMG physicians (5.2b(1)). All leaders are trained to examine Gallup survey results with their work groups. These conversations, as well as leader rounding, exit interviews, and two-way communications, enable us to validate key elements for employees and HFMG physicians on which the surveys are based. To determine key engagement and satisfaction elements for other workforce segments, appropriate leaders, including the HRET, community hospital CMOs,

directors of residency programs and volunteer services, use focus groups, individual interviews, group meetings, and other listening posts. We formalize this determination in internally developed tools to assess these elements (5.2b(1)).

5.2a(2) Organizational Culture.

Orientation and Renewal. All new employees attend System orientation (WOW) on their first work day, which fosters our high-performance culture from day one. Senior leaders define and model our culture: our excellence focus, “can-do” spirit; THFE, Team Member Standards (P.1a(2)); 7 pillars (Fig. P.2-2); and MFI (Fig. 6.1-2). Leaders and managers continually reinforce these in the workplace, starting with BU- and department-level training right after WOW. In their first year, all employees attend two-day cultural *Renewal*, a program to reinforce THFE values and behaviors. All physicians and volunteers are also oriented on these topics, and get customized onboarding. New leaders attend New Leadership Academy (NLA), aligned to THFE and our Leadership Competencies (5.2a(3)). Deployed System-wide, this three-month onboarding program, with five full-day workshops, represents a cycle of learning in leader orientation.

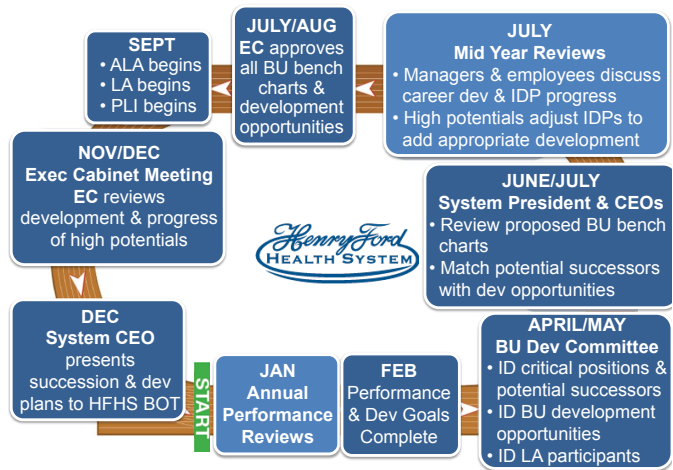
Workforce development. Investment in development is key to high performance and high engagement, and differentiates HFHS in a challenging economic environment (Fig. 7.3-17). Senior leaders teach and mentor in our leadership academies. Annually, our CEO cascades goals tied to employee and leadership development to all leaders. HFHSU offers a robust curriculum to meet organizational and personal needs (5.2c(1)). Development ties directly to our PMP and key elements driving engagement (Fig 5.2-1). It also supports movement through the talent pipeline (Fig. 5.2-2), recruiting from within, and cross-System training to foster collaboration, skill sharing, and engagement.

Fig. 5.2-1: PMP Supports Engagement/High Performance

HFHS PMP	ENGAGEMENT ELEMENTS
Performance Goal Setting & Team Member Standards/Leadership Competencies	Q1. I know what is expected of me at work.
Development Goals & Talent Profile	Q6. Someone at work encourages my development.
Goal Setting (resources identified to achieve goals)	Q2. Have the materials & equipment I need to do my work.
Performance Notes Tool (facilitates real-time feedback on performance)	Q4. In the last 7 days, have received recognition or praise.
Mid-Year and Annual Performance Reviews	Q11. In the last 6 months, someone at work has talked to me about my progress.
	Q12. This last year, have had opportunities to learn and grow.

Open communication. SL modeling (1.1b(1)) and the Team Member Standards of ownership, accountability, and respect foster open communication, reinforced through HFHSU skill-building in courses such as *Speak Up*, *Just Culture*, and *Crucial Conversations* (Figs. 7.3-18 and 7.3-19). A peer-elected Employee Advisory Group (EAG) in every BU meets monthly to discuss BU performance and work climate issues. EAG leaders communicate ideas and concerns to BUs and SL. In addition, a CEO Advisory Group meets monthly to discuss the same issues with our System CEO. Informal employee-supervisor conversations reinforce System values and, with Just Culture principles, resolve most work-related issues. Employees may request review by progressively higher leadership, and an improved policy for advanced dispute resolution was deployed in

Fig. 5.2-2: PMP, Talent Review, and Succession Planning



2010. Our CEO shares her email address with all employees and personally responds to all concerns, comments, and ideas for improvement.

Innovation and diversity. We capitalize on the diverse ideas, backgrounds, and experiences of our workforce, to promote innovation and engagement, through 1) employee resource, network, and advisory groups, 2) improvement teams with diverse members (different job skills, education, gender, race-ethnicity), and 3) employee focus groups designed to capture multiple points of view and promote system integration (Fig. P.1-1). Leaders are trained to create an inclusive culture through courses such as *Generational Diversity*, *Cultural Sensitivity*, and *Leveraging Diverse Teams*. We evaluate effectiveness by reviewing engagement, turnover, and other metrics by various demographics (Figs. 7.3-10 – 7.3-15).

5.2a(3) Performance Management.

High-performance work and engagement. The PMP is a year-round dynamic process between employees and supervisors (Figs. 5.2-1 and 5.2-2). PMP steps align to key engagement elements, an integrated approach that supports both engagement and high-performance work. Private-practice physicians are evaluated by peer-review groups according to BU-specific criteria. Trainees receive periodic performance evaluations by their supervisors. Managers evaluate volunteers assigned to their areas annually on their skills and responsibilities.

Compensation, rewards, recognition. Compensation aligns to employee and organizational performance. Annual reviews directly impact base and variable compensation for all leaders, including merit increases and Annual Incentive Plan (AIP) payments. Each year, incentive plan targets are established for financial, service, and quality and safety performance; no incentives are paid if the System net operating income target is not met (Fig. 2.1-2). Group Performance Award (GPA) targets for non-leaders are tied to financial and service engagement, and starting in 2011, engagement pulse survey participation. Non-compensation rewards and recognition also drive workforce engagement and, in turn, better service to patients and other stakeholders (Fig. 5.2-3).

Patient, stakeholder, health care focus. Our PMP aligns System, BU, and department goals with individual goals to focus employ-

Fig. 5.2-3: Rewards and Recognition Approaches

REWARDS AND RECOGNITION	EMPLOYEES	LEADERS	PHYSICIANS	VOLUNTEERS	GIVEN BY	FREQUENCY
Focus on People Awards	x	x	x	x	HFHS	Annual
Service Awards	x	x	x		HFHS	Annual
Shadow of a Leader Award		x	x		HFHS	Annual
Shadow of Influence Award	x		x		HFHS	Annual
Volunteer Appreciation Week				x	BU	Annual
Employee of the Month Award	x				BU	Monthly
Spirit Awards	x	x	x		BU	Quarterly
Thank You Notes	x	x	x	x	ALL	Ongoing
Celebration of Performance Milestones	x	x	x	x	MED DIR.	Ongoing
Employee Appreciation Picnic	x	x	x	x	BU	Annual
Employee Summer Events (e.g., "HFHS Idol" contest)	x	x	x	x	BU	Annual
Online PMP Feedback Notes	x	x	x		ALL	Ongoing
Appreciation "Bucket" Drops	x	x	x	x	ALL	Ongoing
Quality Expo Awards	x	x	x	x	HFHS	Annual

ees on patients and stakeholders, THFE, and accomplishing SOs and SIs. Employees set individual SMART performance goals related to the pillars, which account for 60% of their annual review. The other 40% is determined by review against the Team Member Standards for non-leaders or the *Leadership Competencies* for leaders. These Baldrige-based competencies are central to leader development, evaluation, and advancement: *Leadership, Strategic planning, Patient/customer focus, Performance analysis and knowledge management, Staff focus, Process management with safety focus, and Results accountability/execution.*

In 2009-10, HFVBH and eight other sites served as pilots for an innovative online PMP. Surveyors from hospital accrediting agency DNV noted favorably that all HFVBH employees could articulate their goals and personal impact on the hospital's success. Engagement scores at the nine sites were 11% higher than the rest of HFHS. Based on our pilot results and learning, we fully deployed the online PMP in 2010 to strengthen alignment of individual and organizational goals.

5.2b(1) Assessment of Engagement. We use formal and informal methods to assess workforce engagement and satisfaction. We assess employee engagement and satisfaction with the Gallup Q12 every 18 months, augmented with pulse surveys of targeted questions every 6-9 months. We also use exit surveys, quality-of-hire surveys, National Database of Nursing Quality Indicators (NDQI) surveys of nurses, as well as focus groups and various leadership communication channels. We survey HFVG physicians biannually using the AMGA survey, which compares to group practices nationally. We use internal surveys for private-practice physicians and trainees, complemented by interactions at periodic meetings, such as medical staff meetings in community hospitals. We survey all volunteers with a tool developed in 2010 after benchmarking with a Baldrige recipient and the MI Council of Directors of Volunteer Services (7.3a(3)*). We segment engagement and satisfaction results by BU, job function, and demographics to analyze differences among respondents, and when possible compare our results externally. HRET uses engagement and satisfaction results as inputs to the SPP. We believe engagement is influenced most at the workgroup level; all managers get training and tools to analyze

and plan how to improve engagement. Employee Engagement Consultants (EECs) and HR BPs coach managers in data analysis and development of targeted Impact Plans, with 100% compliance in 2010. EECs, HR BPs, and managers track progress, and EECs meet monthly to share innovative approaches for System spread. Annually, managers recalibrate and update their Impact Plans. We also analyze absenteeism, grievances, turnover, and employee safety and correlate results with satisfaction and engagement to identify improvement opportunities. Workforce volunteer participation, such as Heart Walk and Community Giving, Helping Hands and Combined Time Off (CTO) Donations (Figs. 7.4-9 and 7.3-16), also shows engagement.

5.2b(2) Correlation with Organizational Results. Annually, the CHRO reviews the correlation of workforce engagement with turnover, patient engagement, and patient safety with the BOT Quality Committee and PC. This analysis is an input to the SPP and development of SOs and SIs. Gallup has demonstrated and our own studies confirm the relationship between engagement scores and individual PMP outcomes, workforce safety incidents, department-level turnover, patient satisfaction, and culture of safety perceptions: our workgroups in the top quartile for engagement performed higher on the business indicators listed, a finding that supports our work-unit focus on improving engagement.

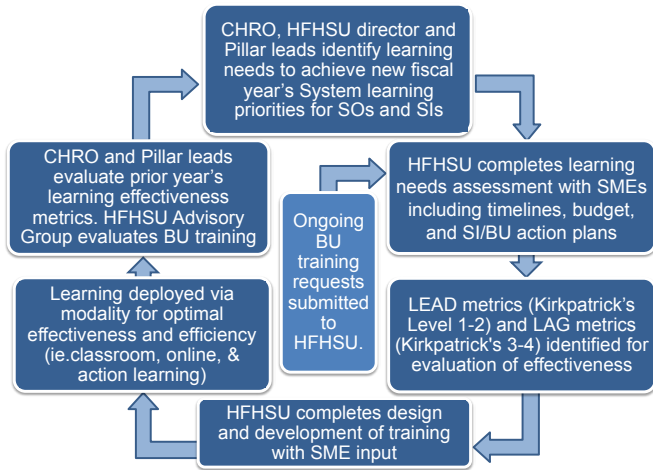
5.2c(1) Learning and Development System. Our corporate learning management system, HFHSU, offers an array of learning programs and partners with other resources, such as nursing and medical education and the Simulation Center.

CCs, SCs, and action plans. We introduce and reinforce understanding of our CCs, SCs, SAs, and action plans through Orientation, *Renewal*, and AME. Specific courses strengthen our CCs, such as *Crucial Conversations* (collaboration) and *MFI* (innovation, collaboration, care coordination). Our leadership development program, aligned with talent management and succession planning (Fig. 5.2-2), develops the leadership knowledge and skills required to sustain our CCs, address challenges, and accomplish action plans. Topics include creating SMART goals, conducting SWOT analyses, deploying action plans, and motivating teams (2.1b(1)). Each academy has a specific focus:

- NLA: System integration and modeling the Leadership Competencies (5.2a(3)).
- LA: the strategic pillars and completing innovative improvement projects
- ALA: higher-level Leadership Competencies and completing strategic System improvements with BU CEOs as sponsors.

In 2009, SL defined systems thinking/integration, innovation, engagement, community representation, knowledge of the market, and business acumen/savvy as competencies required at PC level, and made them the ALA focus to support leader engagement and succession planning. The CHRO meets annually with the PC and pillar leads on workforce development needs (2.2a(5), Fig. 5.2-4). This approach led to *Crucial Conversations* in 2008 (Fig. 7.3-19) to support engagement action plans (People pillar), and *Patient Safety 101* and *Just Culture* training in 2009 (Fig. 7.3-18), helping employees feel safe to "speak up and speak out" to support a culture of safety (Quality/Safety Pillar). Training was deployed to LEAP, then System-wide to all leaders and employees. Based

Fig. 5.2-4: Learning/Development Needs Review Cycle



on our 2010 review cycle, we developed an innovative interactive training, *Speak Up*, that builds on *Crucial Conversations* and *Just Culture* using real events at HFHS. Deployed System-wide, it has earned two national awards for training excellence. Also in 2010, we added Influencer training to LA and ALA curricula to better equip leaders to manage innovative change and collaborative improvement teams across the System.

Performance improvement and innovation. To build workforce capability, promote engagement, and support our CC of innovation, we address improvement and innovation throughout our development curriculum: all orientations introduce the MFI, and *Renewal* focuses on innovation and change management. In 2010, we deployed new training System-wide to support MFI refinements. Advanced PI training in LA and ALA is also recommended for all leaders and employees directing project teams. In 2011, building on our leadership academy approach, we deployed the Physician Leadership Institute (PLI). Developed from best-practice research and benchmarking, it aims to prepare future physician leaders to direct organizational improvement and innovation. Trainees build improvement knowledge through their training programs and hands-on participation on improvement teams.

Ethical health care and business practices. New employees receive HIPAA and Code training. AME for all employees addresses ethical health care and business practices, including new or changing compliance requirements. Just-in-time training addresses emergent risks. NLA provides leaders advanced training in business ethics and HR legal practices, and *Just Culture* training for leaders addresses ethical practice in managing behaviors and reporting risk (Fig. 7.3-18). Physicians and other clinicians receive training on effective communication techniques with patients and families, including disclosure of medical errors; the Simulation Center offers interactive role play to practice and reinforce skills. Annually, employees complete online COI training, and all physicians and leaders sign a form disclosing personal conflicts. Vendors are accountable to strict policies that reinforce ethical business practices (1.2b(2)). The CPT has designed approaches to build workforce knowledge of health care disparities, a key SI for 2011-13. Corporate Compliance annually reviews workforce development to address federal and state regulations, best practices, and risk trends.

Patient and stakeholder focus. Aligning learning and development objectives and resources to the SOs and SIs promotes a patient and stakeholder focus. For example, patient-centered care is the focal point of new employee orientation. Comprehensive competency reviews, including assessment, training, practice, and return demonstration build patient-care skills in clinical areas. Trainees develop procedural skills training, in robotic techniques and ultrasound-guided catheterization, for example, and receive frequent feedback from faculty, peers, clinicians, and patients. Physician learning and development is coordinated through our CME office, to standardize and align medical education content for HFMG and private-practice physicians (Fig. 7.3-20). The Simulation Center allows all clinical team members to practice critical skills, such as surgical procedures and team communication, in an interactive, feedback-rich environment.

Learning and development needs. The CHRO and HFHSU leader identify workforce learning needs from annual discussions with the PC, pillar leads, and leaders in BUs and clinical areas (Fig. 5.2-5); periodic OPRs (4.1b); employee performance reviews; and ongoing input gathered by leaders from SL rounding and daily huddle meetings. Supervisors coach all employees on creating an IDP, as part of the PMP, to address required training and their individual needs. Supervisors also collaborate with HR to provide learning for specific workgroup needs. Employees, as well as HFMG physicians, trainees, and volunteers, have access from work or home to a Web-based learning management system and can self-select opportunities to meet their professional and personal goals (Fig. 7.3-20). The system includes personal learning sites to track assigned courses, course completions, transcripts, and certificates. For example, nurses have unlimited access to current evidence-based protocols, clinical skills training programs, and hundreds of online credit hours to meet competency and licensure requirements.

Fig. 5.2-5: Training Outcomes and Organizational Needs

CORE COURSES/ CURRICULA→	ORIENTATION	NLA	LA	ALA	PLI	AME	RENEWAL	JUST CULTURE	CRUCIAL CONV	SPEAK UP	PT SAFETY 101	INFLUENCER
KIRKPATRICK'S												
Level 1	X	X	X	X	X	X	X	X	X	X	X	X
Level 2	X	X	X	X	X	X	X	X	X	X	X	X
Level 3		X	X	X	X		X	X	X	X		X
Level 4			X	X	X	X	X	X	X	X	X	X
AUDIENCE												
Employees	X	X				X	X	X	X	X	X	X
Leaders	X	X	X	X		X	X	X	X	X	X	X
HFMG Physicians	X	X	X	X	X	X	X	X	X	X	X	X
Trainees	X	X				X	X	X		X	X	
Volunteers	X					X	X	X		X		
Pvt-practice Physicians	X					X						
PILLARS												
People	X	X	X	X	X	X	X	X	X	X		X
Service	X	X	X	X	X	X	X	X	X	X	X	X
Quality/Safety	X	X	X	X	X	X	X	X	X	X	X	X
Growth	X	X	X	X	X		X					X
Research Ed	X	X	X	X	X		X					X
Community	X	X	X	X	X		X					X
Finance	X	X	X	X	X							X

Knowledge transfer from departing/retiring workers. We use multiple methods to transfer knowledge from departing/retiring workers: 1) continuously updating department, BU, and System policies; 2) cross-training, mentoring, and other knowledge transfer tools, such as an improved exit interview process deployed System-wide in 2010; and 3) completion of transition checklists by incumbent with interim/permanent replacement employee prior to departure. HFMS requires a three-month contract termination notice for physicians. Physician departures trigger a process for notifying patients and proactively identifying a new physician, and CPNG provides seamless transfer of patient information to the next provider. The KW (4.2a(3)) and Baldrige applications are also methods to preserve and share knowledge.

On-the-job reinforcement. An onboarding checklist for managers reinforces job expectations. BU and department orientations set expectations and check for understanding. Clinical areas assign each employee to a personal preceptor. During the preceptor period (3-9 months for nurses), employees are observed for transfer of learning and are required to complete relevant online courses. Periodic 90-day audits assess competency, compliance, application of learning, and additional needs.

5.2c(2) Learning and Development Effectiveness. HFHSU uses Kirkpatrick’s four levels of learning and an annual review cycle with leaders (Fig. 5.2-4), focused on action plan accomplishment, to assess learning and development effectiveness. We relate participation and effectiveness to cost to assess efficiency. In 2009, for efficiency, we consolidated internal experts in instructional design, technical training, and organization development in the HFHSU; over 50 online clinical and nonclinical courses were developed in 2010 at a cost avoidance of \$800,000. Engaging HFHS leaders who are health care experts as HFHSU faculty is another efficiency.

5.2c(3) Career Progression. Employees enter their IDPs in the online PMP, and leaders complete a personal profile section for short- and long-term career interests, as well as past and current work experiences. With supervisors, they discuss career development opportunities at the goal-setting and mid-year reviews. HFHS supports career progression with defined career paths for various jobs, daily online postings of all available positions, and the online Careers for Life program, with resources that span the career life cycle, deployed System-wide through HFHSU. Succession planning is a key business strategy to build a leadership pipeline, retain bench strength, increase engagement of high potentials, and ensure business continuity (Fig. 5.2-2). We use criteria to identify critical positions and high-potential candidates. SL selects high potentials and outlines development opportunities, with a focus on job rotations, confirms their own identified successors, and updates progress of leaders in the talent pool. The EC recommends participants for the three academies, which prepare leaders to advance: NLA prepares all leaders; LA, leaders for LEAP; and ALA, leaders for PC. Position-specific successors are in place for PC and BU leadership members.

6.1 Work Systems

6.1a(1) Design Concepts. HFHS work systems include the infrastructure, people, materials, and measures necessary to execute our work processes. We assess each of these elements annually during the SPP. Our SPP, with its focus on measurement, use of pillars, workforce planning, and participation of all BU key leaders allows us to identify and address work system issues and opportunities cohesively and effectively leverage the many assets of our integrated System. The PC and SL identify work systems requiring design or redesign, innovation, or improvement through the annual SPP (Fig. 2.1-1, **Steps 1-6**) and ongoing OPRs (SPP **Step 7**, 4.1b). Work systems are designed and innovated, often through SIs, using the MFI (Fig. 6.1-2), based on PDCA methodology. In 2010, through a cycle of learning and improvement, our work systems and key work processes (Fig. 6.1-1) were realigned to more closely tie to patients and stakeholders (Fig. P.1-7) and core components of our integrated System of care (Fig. P.1-1), sharpening our focus on patient/stakeholder value.

Our CCs are the foundation of our integrated System. We leverage them to create effective work systems and processes

Fig. 6.1-1: HFHS Work Systems and Key Processes

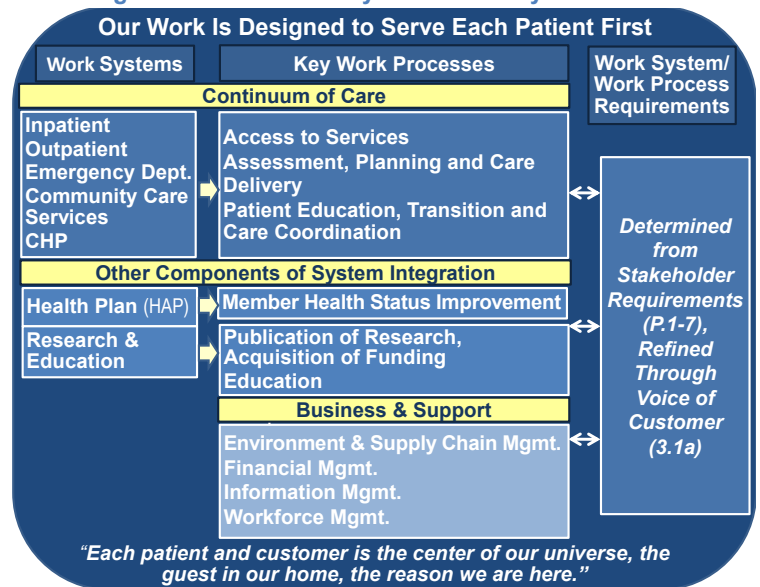
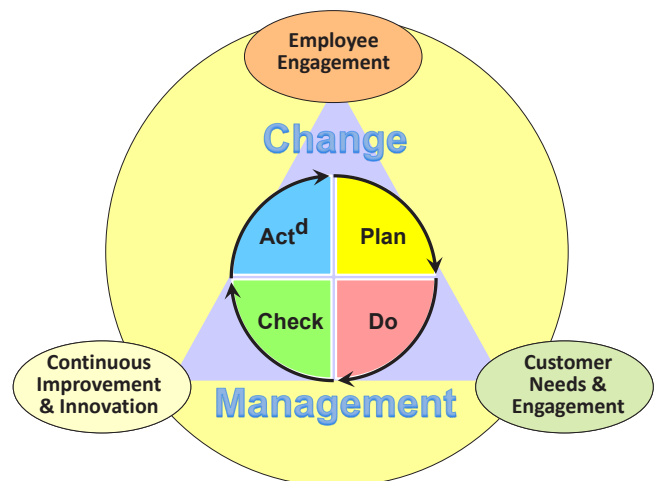


Fig. 6.1-2: HFHS Model for Improvement (MFI)



d = Debrief and evaluate effectiveness of improvement methods and tools

that better serve our stakeholders. For example, continuum of care work systems are designed and innovated by collaborative multidisciplinary teams with expertise in care coordination to increase coordination across care settings, such as from IP to OP or CCS. We engage physician experts and researchers to lead the design/redesign of key health care processes to “bring the bench to the bedside,” improving health care outcomes often at reduced cost (Fig. 7.4-14). The synergy between our three CCs creates improved outcomes for patients. Examples include: 1) HFHS innovations in controlling blood glucose levels during inpatient stays and transitions from IP to OP care (7.1a*) and 2) safely managing outpatient therapy with Warfarin, a commonly used oral anticoagulant that requires frequent blood tests and rapid dose adjustments to maintain safe, therapeutic levels (Fig. 7.1-16). These are among many HFHS innovations that are now standards of care in the U.S. (Fig. 7.4-14).

The PC decides which System processes to outsource during the SPP (**Step 2c**). BU leaders use a similar approach for BU processes. We keep processes internal when HFHS has expertise to meet/exceed requirements for quality, cost, and efficiency. These typically include processes critical to maintain and reinforce our CCs and fulfill our mission. We consider outsourcing others, capitalizing on our CC of collaboration/partnering, when relationships align with our MVV and deliver stakeholder value (6.2b(3)). For example, we achieved a dramatic reduction in CCS’s durable medical equipment (DME) inventory by outsourcing the distribution process and collaborating with our suppliers (Fig. 7.1-34). Outsourced processes are managed by internal contract owners with appropriate SL oversight.

6.1a(2) Work System Requirements. We use patient/stakeholder listening posts to understand their requirements (3.2a(1,2)). Our work systems align to patients’ and stakeholders’ requirements. Work processes align to work systems, and requirements flow from systems to processes (Fig. 6.1-3, 6.2a(2)). The MC reviews and refines requirements at least annually (4.1a.1)) to ensure patient and stakeholder requirements as well as organizational needs are incorporated.

6.1b(1) Work System Implementation. Work systems and work processes are managed and improved using the approaches described in 6.2b(1). We manage, innovate and improve our work systems to function as a cohesive integrated System (Fig. P.1-1). We measure and review work system performance, using our 7 pillar framework, action plans, and systematic reviews of System, pillar, and BU performance (4.1b, 4.1c(3)). Effective coordination between work systems creates agility (2.1a(2)) and an ability to create differentiated service offerings (3.2a(1)), such as managing patients at high risk for hospital readmission by coordinating efforts among hospitals, physicians, CCS, and HAP (Figs 7.1-9 – 12).

6.1b(2) Cost Control. To improve outcomes and control cost, we leverage our CCs, integrated System strategy (Fig. P.1-1), and MFI by reducing process variation, deploying standardized best practices, and increasing coordination and integration of services, thus maximizing efficiencies across the System and effectively managing processes (Figs. 7.1-24, 7.5-2). We deploy processes to reduce process variation and standardized

best practices to minimize the cost of health care while improving outcomes. Examples include admission reductions for chronic populations (Fig. 7.1-9) and HFMG partnerships with HAP and Detroit automakers to design innovative workplace health programs. E-Prescribing, now a national best practice for increasing safety and reducing costs, began as a collaboration between HAP/CCS/HFMG and Detroit automakers.

Our highest priority is to become a harmless organization (1.1a(3)). The Institute of Medicine (IOM) estimates U.S. cost of harm at \$17-29B. Designed to improve safety across all practice settings, the No Harm Campaign includes a comprehensive and highly-sensitive definition of harm (see glossary). Under Q&S Pillar oversight, a multidisciplinary No Harm Steering Committee identifies process owners accountable for System-wide outcomes, conducts OPRs, benchmarks, removes barriers, and ensures that the MFI is effectively leveraged to reduce harm. Our System-wide approach has four elements:

1. Enhance culture of safety (Fig. 7.1-3, 7.4a(1), 1.1a(3)).
2. Improve clinical communication quality/clarity (Fig. 7.1-3).
3. Identify top causes of harm overall and at specific points in the continuum of care (Figs. 7.1-1-8).
4. Redesign work systems and processes to eliminate common causes of harm (Figs. 7.1-8, 7.1-25 – 29).

We use an innovative approach to report and study harm events, research causality, identify priorities, and change practice to eliminate all harm to patients and staff (Figs. 7.1-1 – 8). Our rigorous methodology for measuring harm, called cutting-edge by IHI, includes 23 measures in six broad categories. Any event adds to our highly sensitive composite measure (Fig 7.1-1). We also lead in development of rigorous methods to calculate cost savings from harm reduction (7.5a(1)*). Our *Just Culture* program, deployed System-wide in 2009, is a standardized approach to error and behavior management to promote a safety culture (5.2c(1), Fig. 7.3-18). Our Safety Champions program, with our 200 trained champions located in every BU, reinforces safety practices through ongoing education awareness and peer role modeling. Communications are continuously improved, for example, through collaborative rounds and improved handoffs within and across BUs (Figs. 7.1-9-14, 7.1a*-referrals).

The IOM identified medication errors as a leading cause of harm. Hospitalizations secondary to adverse drug events cost \$847M annually in the U.S. HFHS developed an award winning innovative, cost-effective approach to optimize medication therapy for high-risk outpatients. HFHS’s Medication Therapy Management (MTM) capitalizes on collaboration with patients and care coordination among our hospitals, HFMG and community physicians, and clinical pharmacies within CCS and HAP. A pharmacist reviews all medications, calls the patient to provide education and assess needs, and collaborates with the patient’s physicians on an outpatient medication regimen. First targeted for Medicare HAP patients, the program is being deployed System-wide to all patients at high risk for readmission due to medication issues. MTM undergoes continuous improvement: effective approaches are quickly and systematically deployed to all MTM programs (Fig. 7.1-33). The No Harm Campaign itself is regularly reviewed and improved by the NHSC, with inputs from the BOT, stakeholders, and partners (6.2a(4)).

Fig. 6.1-3: Key Work Processes, Work Systems, Requirements, and Measures

KEY PROCESS		Related Pillars* & Core Competencies**	
Work System <i>Sample Key Workgroups</i>	Requirements	Key In-Process Measures (Results Reference – Fig.# or *)	Key Outcome Measures (Results Reference – Fig.# or *)
KEY CONTINUUM OF CARE PROCESSES			
ACCESS			S, Q&S, G, F; C2
IP, OP, ED, CCS, CHP <i>Scheduling, Contact Center, Case Mgmt.</i>	<i>Timely, Efficient, Equitable</i>	Length of Stay (7.1-23); Bed TAT(7.1-38) Left Without Completing Service (7.1-35) HFMC Clinic—Unanswered Calls (7.1-36) Online Appointment Requests (7.1b(1)*) % Discharge Pts seen by CCS in 48 hrs (7.1-10)	Visits to Community Clinics (7.4-8) Patient Emergency Medical Needs Fund (7.4a(5)*)
ASSESSMENT, PLANNING & CARE DELIVERY			P, S, Q&S, G, R&E, C, F; C1, C2, C3
IP, OP, ED, CCS, CHP <i>Lab, Radiology, Multidisciplinary Team, Nursing, Physicians</i>	<i>Timely, Efficient, Reliable</i>	% ED CBCs & STAT Tests in 30 Minutes (7.1-37) % Discharge Pts seen by CCS in 48 hrs (7.1-10)	Days to Readmission for High Risk Patients (7.1-11) MISTAAR Unit 30-Day Readmission Rates (7.1-12)
	<i>Safe, Reliable, Timely, Efficient</i>	CMS Bundles/Core Measures (7.1-8, 7.1-25, 7.1-29) Seclusions and Restraints (7.1-15) Management of Blood Glucose (7.1a*) Medical/Surgical Length of Stay (7.1-23)	No Harm Campaign Outcomes (7.1-1-8) Admission/ ED Visit/Readmission Reduction (7.1-9-13) Clinical Outcomes (7.1-14,7.1-16-17, 7.1a*) Mortality (7.1-18-22)
PATIENT EDUCATION, TRANSITION & CARE COORDINATION			P, S, Q&S, R&E, C; C1, C2, C3
IP, OP, ED, CCS, CHP <i>Physicians, Nursing, Case Mgr., CCS, HHC Liaison, Partners</i>	<i>Pt. Centered, Safe/Reliable, Promotes & Improves Community Health/Wellness</i>	Smoking Counseling/Discharge Instructions (7.1-27) % Discharge Pts seen by CCS in 48 hrs (7.1-10) Stroke Care (% Discharged on Statins) (7.1-29) PMPM Cost & Prescription Generic Use Rate (7.1-32) Medication Therapy Management Results (7.1-33) Medical/Surgical Length of Stay (7.1-23)	Admission/ ED Visit/Readmission Reduction (7.1-9-13) Referrals among BUs (7.1a*) Culture of Safety Scores (7.1-3) Suicide Rates (7.1-14) Cost Savings from Care Coordination (7.1b(1)*) Community Clinic Visits/Weight Watchers (7.4-8, 7.4a(5)*)
OTHER KEY INTEGRATED SYSTEM PROCESSES			
MEMBER HEALTH STATUS IMPROVEMENT (HAP)			S, Q&S, C, F; C1, C2, C3
HAP <i>HAP with CCS, HFMC, care coordinators, etc.</i>	<i>Timely, Efficient, Effective, Accessible</i>	HEDIS Measures (7.1-30-31, 7.1b(1)*) PMPM Cost & Prescription Generic Use Rate (7.1-32) Medication Therapy Management Results (7.1-33) HAP Claims Processing (7.1b(1)*) HAP First Call Resolution (7.1b(1)*)	HAP Admission and ED Visit Reduction (7.1-9) Cost Savings from Care Coordination (7.1b(1)*) Referrals among BUs (7.1a*) Weight Watchers (7.4a(5)*) HAP State Area HMO Market Share (7.5-15)
EDUCATION			P, S, Q&S, R&E; C2, C3
R&E	<i>Timely, Efficient, Effective</i>	Accreditation Council on Graduate Medical Education (ACGME) Duty Hours—Requirements (AOS)	Trainee Satisfaction & Preparation (7.3-14) CME Activity (7.3-20); Culture of Safety (7.1-3) Blood Stream Infection Rate (7.1-5)
RESEARCH: Publication of Research, Acquisition of Funding			Q&S,G, R&E, F; C1
R&E	<i>Safe, Reliable Care, Economic Stimulus</i>	Perfect SEPSIS Bundle (7.1-28) Management of Blood Glucose (7.1a*)	Publications & Funding (7.1b(1)*) Sepsis Mortality (7.1-20) HFHS Research Innovation Impact (7.4-14)
KEY BUSINESS AND SUPPORT PROCESSES			
Environment & Supply Chain Management			S, Q&S, C, F; C3
ALL <i>Supply Chain Management</i>	<i>Safe, Reliable, Efficient, Effective</i>	CCS Inventory Reduction & Productivity (7.1-34) Product Recall Alerts, Days to Close (7.1-39) Emergency Preparedness (7.1-42)	Supply Expense as % of Net Patient Revenue (7.1-24) Supplier Diversity Leadership (7.4-13)
Financial Management			S, Q&S, G, C, F; C3
ALL <i>Finance</i>	<i>Timely, Efficient, Effective, Equitable</i>	CCS Inventory Reduction & Productivity (7.1-34) Cash Collections at Point of Service (7.1-40) Days Cash on Hand (7.5-7)	Supply Expense as % of Net Patient Revenue (7.1-24) Financial and Market Outcomes throughout 7.5
Information Management			S, Q&S, G,R&E, F; C1, C3
ALL <i>IT (& Siemens)</i>	<i>Timely, Efficient, Effective</i>	Patient Admin. Systems Availability (7.1b(1)*) IT Help Desk First Call Resolution (7.1-41)	CPNG Participation/Use of Key Features such as Medication Reconciliation, Electronic Discharge (AOS)
Workforce Management:			All Pillars; C1, C2, C3
ALL <i>HR</i>	<i>Efficient, Effective, Safe, Equitable</i>	Time to Fill (7.3-1) Incident Reporting: Employee Safety Events (7.3a(2)*)	7.3 Workforce Outcomes (capability & capacity, climate, engagement, and development results)

*Related Pillars: P – People, S – Service, Q&S – Quality & Safety, G – Growth, R&E – Research & Education, C – Community, F – Finance

Core Competencies: C1: Innovation, C2: Care Coordination, C3: Collaboration/Partnering **Bold Measures = Daily Operational

Fig. 6.1-4: Reduction of Errors and Waste

APPROACH	REPRESENTATIVE APPLICATIONS
Process and Product Standardization	<ul style="list-style-type: none"> Multidisciplinary care design teams work with site champions to design and deploy evidence-based approaches to chronic disease management throughout the organization (Fig. 7.1-9, 7.1b(1)*) – cost savings) VATs help standardize and innovate med/surg products to reduce costs and improve outcomes (Fig. 7.1-24, 7.1a*).
Technology and Automation	<ul style="list-style-type: none"> The EMR supports error-free clinical decision-making by making complete patient information available wherever the patient is seen, identifying interventions through alerts, and providing automated medication safety checks (4.2a(2)). Card-swipe access, patient bar code identifiers, unit dosing, and ePrescribing support medication safety (Fig. 7.1-2). Replacing paper communication with an online system permits instantaneous deployment of product “alerts,” including recall notices in fourteen high-risk domains (e.g., biologics, laboratory products) (Fig. 7.1-39).
Prevention	<ul style="list-style-type: none"> System-wide use of evidence-based approaches prevent errors and promote safe, effective care (Figs. 7.1-25-29, 7.1-8).
Training	<ul style="list-style-type: none"> Targeted training, observation and feedback, and demonstration of learning provide consistent and accurate performance of error-prone tasks. Examples include mandatory resident training in line placement, with observation by senior physician staff members, which has helped reduce bloodstream infections (Fig. 7.1-5)
Learning from Experience	<ul style="list-style-type: none"> RadicalLogic enables front-line staff to report and route risk and customer issues for investigation and action (3.2a(3)). Detection of high-risk and near-miss events permits intervention before harm occurs (Figs. 7.1-1-2, 7.3a(2)*)-reporting). In the annual Risk Trends Reviews, a broad array of safety data is analyzed and correlated to identify priorities and action items; results are fed into the SPP (Fig. 2.1-2, Steps 2-6) and ongoing OPR by the PC for deployment to all BUs (Step 7). Reviews have led to redesign of new product introduction (e.g., rigorous clinician evaluation and user training), new approaches to vendor management, and design of System-wide sentinel event protocols (e.g. Figs. 7.1-2, 7.1-18-21)

We systematically integrate five fundamental approaches in process design/redesign or management to prevent medical errors and minimize inspection costs and rework (Fig. 6.1-4). The fifth approach, “learning from experience,” provides a feedback loop to identify further opportunities for standardization, automation, education, and prevention, all of which can be captured in the KW (4.2a(3)). Lean and Six Sigma concepts are integrated into our learning and development programs (5.2c(1)) and used within our MFI to support waste reduction and defect elimination. These methods have led to improved quality and efficiencies in processes, including over 1,300 team-based process improvements in the HFHS Pathology service line (Fig. 7.1-37).

6.1c Emergency Readiness. HFHS uses a hazard and vulnerability analysis tool as a best practice to design and maintain comprehensive emergency preparedness. A committee with cross-System representation, operating under the HFHS Environment of Care Committee, is responsible for the System’s plan. To ensure a coordinated emergency or disaster response, HFHS participates in local, regional, state, and national planning, in cooperation with other health care providers, community representatives, and government agencies, from city governments to Homeland Security. The emergency preparedness plan includes an array of prevention approaches. For example, the Influenza Planning Committee annually anticipates flu season and guides the immunization program, while overseeing plans for a potential flu pandemic and quarantine. Each HFHS facility is prepared to activate an Incident Command System, based on the HICS. HFHS also activates the HICS in local non-emergent but high-risk situations to ensure communication and control.

To ensure effective emergency or disaster management, and promote continuity of operations, all workforce segments receive appropriate training for their roles. This includes required National Incident Management System (NIMS) training, basic and advanced disaster life support, decontamination training, and cross-training to fulfill multiple patient care roles. The plan includes guidelines for how all facilities and BUs communicate with and support each other. It addresses food, shelter, transportation, and child and elder care for health care workers and volunteers, including formal arrangements with vendors for critical supplies and for staff and emergency personnel. We promote constant readiness by performing various drills within facilities and in partnership with others (Fig. 7.1-42). We review our performance during drills and real-time emergencies. These reviews have led to improvements in surge capacity, communication, decontamination, patient tracking, and evacuation, all of which are tested through drills. We estimate that 300% more trauma victims could be treated during a disaster due to these improvements. Planning for emergency availability of hardware and software systems is a subset of overall emergency readiness (4.2b(2)).

6.2 Work Processes

6.2a(1) Design Concepts. The MFI (Figs. 6.1-2, 6.2-1) is used to design and innovate work processes to ensure they meet customer requirements, operational requirements for efficiency

Fig. 6.2-1: MFI Process Steps and Sample Tools from MFI Toolkit

PHASE	SYSTEMATIC APPROACH	SAMPLE TOOLS
PLAN	<ul style="list-style-type: none"> Clearly identify the problem statement Identify process owners & champions, team members (partners, strategic supplies, patients and family members) Understand stakeholders & customer needs Observe/document current condition/process Data collection (data mining for root causes) Identify root causes (through observations, interviews, data) Create SMART Goals Idea generation Develop work plan 	A3 problem-solving tool, stakeholder and customer analysis, FMEA, root cause analysis, SIPOC, SMART goals, Waste Walk, Pareto analysis, Benchmarking
DO	<ul style="list-style-type: none"> Identify improvement (create new process) Communicate the change Pilot/implement Collect data on process 	Process analysis, current/future state mapping, standard work, one piece flow, process scorecards
CHECK	<ul style="list-style-type: none"> Check (determine if process change is effective) Data on Process Improvement Customer view on change Worker view on change 	Run charts, statistical analysis, sampling plans, feedback tools, action plans
ACT AND DEBRIEF	<ul style="list-style-type: none"> Continue improving process or monitor performance, hold the gain, & spread improvements d = Debrief: document and share improvements (added in 2009 as a cycle of improvement) 	Control plans, small tests for rapid evaluation, debrief process

and effectiveness including cost control (6.1b(2)), and to incorporate new technology or knowledge. The PDCA cycle is the core of our model, which includes tools such as Lean, Six Sigma and change management and systematic approaches to innovation (6.2a(4)) that are deployed System-wide through a comprehensive curriculum that includes classes for leaders and team members. Front-line staff receive just-in-time (JIT) training from skilled facilitators and team leaders. HFHS implements work process designs/innovations in pilots whenever possible, with close observation, data collection, and analysis against design requirements. Effective implementation is achieved through phased roll-out and staff training, often led by peers experienced in the new work process.

Work process design and innovation approaches are aligned with work system approaches described in detail in 6.1a(1). Key processes that need to be designed or innovated to fully meet stakeholder requirements are identified using multiple inputs, including: 1) VOC methods (3.1a), 2) SPP analyses of external environmental changes like health care reform and regulatory changes, 3) SI analyses such as OPRs of the No Harm Campaign and other SIs (4.1b), and 4) workforce and collaborator feedback. The PC and SQF then prioritize System level process improvements and BU leadership teams prioritize local improvements. This approach ensures alignment and agility.

Evidence based approaches are essential to both our No Harm Campaign and our research methods and contributions (Fig. 7.4-14). For example, we have incorporated the World Health Organization (WHO) surgical checklist, an evidenced based approach to improve surgical safety (Figs. 7.1-6, 7.1-26), in all System operation rooms (ORs) and we now are incorporating this evidence-based approach into all procedural areas. We consistently implement proven bundles of care throughout the System (Figs. 7.1-8, 7.1-25 – 29). Many HFHS programs are certified for using evidence-based approaches, such as our transplant program certified by CMS (Fig.7.1-22). Service

excellence is hardwired through multiple approaches such as consistently providing a “warm welcome” (6.2b(2)).

6.2a(2) Work Process Requirements Our process for determining work process requirements is consistent with our approach for work systems, described in 6.1a(2), in which design teams use the input to determine process requirements. Input is gathered through various listening posts to understand the requirements of all stakeholders (3.1a(1,2)). Design teams analyze input including VOC to determine process requirements and identify best practices, including internal innovations, to guide the new process design (Fig. 6.1-2). Stakeholders, such as patients and employers, actively participate in design teams, giving input throughout the design process. For example, patients were members of HFWBH process design teams, and patients and employers provide ongoing input to the CISC as we implement new chronic disease programs and Patient Centered Team Care (PCTC) (Fig. 7.1-9), modeled after Advanced Medical Home research (6.2b). Partners, suppliers, and collaborators also participate on design teams. For example, partners such as Covansys worked with us in design and implementation of our contact center. A stakeholder analysis tool from our MFI Toolkit is used to ensure teams charged with determining key work process requirements have representation or input from all key stakeholders as appropriate. Fig. 6.1-3 summarizes requirements and measures of key processes, which are reviewed and refined at least annually during **Steps 3** and **5** of the SPP. The owner of an initiative is responsible for review and refinement of requirements, with assistance from Operational Analytics and the MC.

6.2b(1) Key Work Process Implementation. Fig. 6.1-1 shows our key work processes in relation to our work systems. The key Continuum of Care processes—access; assessment, treatment planning, and care delivery; and patient education, transition, and care coordination—are common to all work systems in the continuum of care (Fig. 6.1-3). The key integrated System processes align to the HAP and R&E work systems; the key Business and Support processes serve as a foundation. Process owners and operators manage work process performance on a daily basis using customized dashboards with data on customer, supplier/partner, and operational requirements (4.1a(1)). Dashboards are widely deployed across BUs and Pillar Teams, and managers use data to make day-to-day operational decisions related to work processes. For example, all hospital leaders and managers review dashboards with census, volumes, revenue, bed availability, and productivity data (4.1b). Those at HFMG ambulatory centers review dashboards of patient access/appointment availability, phone access, and timely response and closure of patient telephone messages. HAP managers review daily member IP census, phone access, and claims throughput. Fig. 6.1-3 shows sample measures used for control and improvement of key processes, with daily operations measures in bold. Process owners often supplement such data with real-time input from internal customers, patients and families, and supplier/partner input from performance reviews. Our System-wide OR TVs, inspired by gas pump TVs used for advertising, represent an innovation to ensure process requirements are met. These small TVs, mounted in work areas such as handwashing stations, are used to introduce new processes, such as the WHO checklist, and other changes in the operating suites (6.2a(1)).

6.2b(2) Patient Expectations and Preferences. To better understand individual patient expectations and preferences, we train care providers, including trainees, in patient communication, including role-play sessions with live actors at the Simulation Center (5.1c(1)). Krames-on-Demand patient education materials, available System-wide, offer up-to-date information on a broad range of topics, in multiple languages and literacy levels. They can be integrated into the patient’s EMR and printed for the patient.

HFHS PARTNERS in Patient Safety is a set of behaviors introduced to patients and family members in all care settings to motivate involvement in safety and decision-making (Fig. 6.2-2).

Fig. 6.2-2: PARTNERS

P: Participate in all decisions
A: Ask questions
R: Review your health information
T: Take a list of ALL medications
N: Notify the nurse or doctor
E: Educate yourself about your health
R: Request a family member be involved
S: Speak to your health care team

To meet the needs of patients in particular care settings, we use customized approaches:

- An innovative, nationally acclaimed HFMG program offers patients with prostate or breast cancer, and their family members, “one-stop shopping” to learn about treatment options: a comprehensive educational session tailored to the patient’s learning needs and style, followed by individual visits with a surgeon, radiation oncologist, medical oncologist, and nurse. Deployed to other tumor programs and integrated System-wide, these programs leverage our CCs of collaboration and care coordination.
- Consistent with our MVV, nurses develop individualized care plans for IP, with customized goals and expected outcomes, reviewed with patients and family members at least daily. Whenever possible, such as with patient-controlled analgesia (pain management), protocols enable patients to exercise greater input to their plans.
- A toll-free line enables designated family members of HFH ICU patients to access information about the patient’s clinical status every shift so they can stay fully informed and participate in care decisions.
- “Warm Welcome” is a cycle of improvement based on patient feedback from follow-up calls. Patients referred to HHC receive a “Warm Welcome” call the day of their referral to discuss expectations, address scheduling, and answer concerns, leveraging our CC of care coordination.

6.2b(3) Supply-Chain Management. Supplier selection is based on patient/stakeholder satisfaction and value of price, quality, service, and delivery. We also seek local and diverse suppliers in alignment with our values (Fig. 7.4-13). Often, innovation and technology are also key factors. Vendor orientation is mandatory, and 100% compliance with all supply chain management policies and procedures is required. Supplier certification includes a review of financial statements, customer references, and industry reputation and success. We manage the supply chain through automated processes. Suppliers receive orders electronically; purchase, receipt, distribution, and

payment for products and services requested by customers are managed through our “order to pay” process, fully integrated with Accounts Payable. We conduct quarterly performance reviews with key strategic suppliers, such as Premier, which accounts for 55% of our supply spend. HFHS staff, including key stakeholders, meet with supplier representatives to analyze cost, quality, service, and delivery as well as internal customer satisfaction. We address poor performance with plans and timelines for corrective action. Without timely improvement, suppliers may be dismissed.

6.2b(4) Process Improvement. We use the MFI and appropriate tools selected from our toolkit to improve health care outcomes and services, achieve better performance, and reduce variability (Fig. 6.1-2, 6.2(a)). This model has been systematically improved over many years to incorporate new methodologies and best practices. For example, a new emphasis on change management in 2010 aligned with our strategy to increase employee engagement and innovation. We evaluate work process performance and set improvement priorities through the SPP (Fig. 2.1-1), performance reviews (4.1b), management of daily operations (6.2b(1)), and Baldrige-based assessments (P.2c).

We foster innovation through multiple approaches, including culture, workforce strategy, setting high goals that require breakthrough change, creating incubators for innovation such as the Simulation Center, and sharing innovations through the Quality Expo, performance review, research methods, and other means. We apply our MFI to promising new ideas to develop, refine, deploy, and spread innovations. In our search for best practices and innovative ideas (part of “Plan”), we capitalize on our CCs, internal research and education, the expertise of our own clinicians, knowledge from our collaborative partners (e.g., surgical care improvement project (SCIP), IHI’s 5 Million Lives Campaign, Keystone), collaborations with professional and industry experts (e.g., Press Ganey and Premier), and benchmarking with Baldrige recipients and other high performers in and outside of health care. Sharing our innovations nationally helps us learn and improve faster. For example, IHI, AHRQ, MHA and others have considered our No Harm Campaign a starting point for a potential national model. This has led to further refinements as more experts are exposed to our innovations and are able to test them on a broader scale.

System-wide teams of performance improvement specialists systematically review and improve process improvement approaches using analysis against ADLI, best practices, and lessons learned. Improvements and lessons learned are deployed continuously by means of performance reviews by the PC and BU/Pillar teams (4.1c(1)); key leadership meetings, such as quarterly LEAP retreats and All-Leadership Town Hall meetings; publications for the workforce, such as *News and Views* or *Monday Monitor*; and the HFHS Website and KW (4.2a(3)). An annual sharing method is the HFHS Quality Expo, a week-long poster exhibition of over 70 projects, including a competition among top project teams judged by outside experts. The Expo online catalog profiles process changes and results following the MFI format (Fig. 6.1-2). All projects are catalogued in the KW to spread learning across the organization.

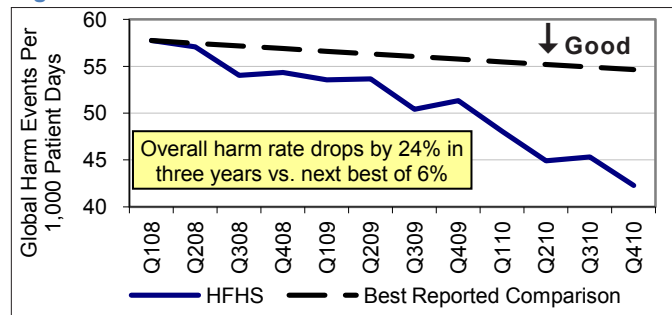
*Note: Throughout category 7, the symbol * indicates a result in text only, not in graphic. This symbol helps the reader find results. HFHS is a large integrated System, and representative results are provided as space allows. Additional or further segmented results are available on site (AOS).*

7.1 Health Care and Process Outcomes

7.1(a) Patient-Focused Health Care Results. Relentless in our pursuit of clinical quality and patient safety, we excel in many patient outcomes: **No Harm:** Our top priority is reducing harm: achieving results four times faster than our peers. **Reduced Hospitalization:** We leverage our integrated System to keep patients healthy and out of the hospital. **Clinical Outcomes:** We address the physical and mental health of our diverse community (for example, we are the national benchmark for suicide prevention). **Mortality:** As a result of our efforts, we have reduced mortality by 40% in the last decade.

No Harm Campaign. Our top priority is to reduce harm. HFHS is a national leader in harm reduction achieved, reducing harm four times faster than the next best (Fig. 7.1-1). Over the past three years variation from hospital to hospital has been reduced

Fig. 7.1-1: Global Harm



through successful efforts to increase reporting and spread practices (4.1c(1)) to decrease harm (AOS). While there is no direct comparison as HFHS uses a more rigorous approach to harm measurement than other organizations (6.1b(2)), significant benchmarking with IHI, AHRQ and others revealed that the maximum harm reduction reported elsewhere is approximately 2% per year. Global harm is a highly sensitive composite measure adding any instance of harm from 23 distinct measures including all hospital acquired conditions and more. We compare each of these distinct measures to existing benchmarks available (e.g. Figs. 7.1-4, 8). In each case, HFHS exceeds 75th %ile. To aid performance review and action planning, measures are grouped into categories such as procedural, medication-related, and infection-related harm (Fig. 7.1-2). The No Harm Steering Committee ensures that deep dives identify root causes and improvements are deployed across the System.

HFHS recognizes that harm is avoided in a culture that emphasizes patient safety. As a result of our Safety Champion program and our COS education, our employees’ perceptions and attitudes about safety, as measured by our EOS, continue to improve with five out of six areas exceeding 75th %ile (Fig. 7.1-3).

Hospital-acquired infections are a major cause of complications, mortality and increased LOS. We have dramatically

Fig. 7.1-2: Medication, Infection, & Procedure Related Harm

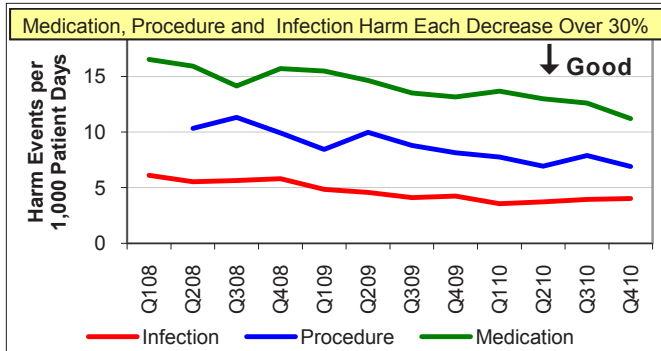
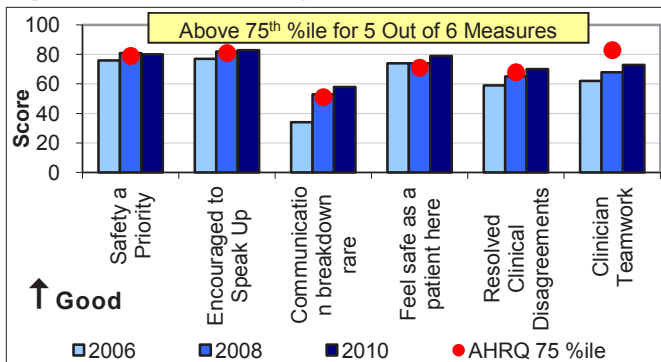


Fig. 7.1-3: Culture of Safety Scores



reduced infections System-wide (Figs. 7.1-4 – 6). HFHS participates in the MI Keystone ICU Care Improvement Initiative, which includes reducing Ventilator Associated Pneumonia (VAP) rates. Through consistent application of evidenced-based bundles of care aimed at reducing local outbreaks (7.1-4), HFHS rates exceed 75th %ile.

Education improves care. Since implementing our innovative, interactive DVD, “Pokes and Prods,” teaching best practice such as central line insertion technique based on the bundle concept, blood stream infection rates now approach zero (Fig. 7.1-5).

Infection rates for coronary artery bypass graft (CABG), hip, and knee surgeries show continued improvement, at or better than the 75th %ile (Fig. 7.1-6). HFHS was an early adopter of

Fig. 7.1-4: Ventilator Associated Pneumonia

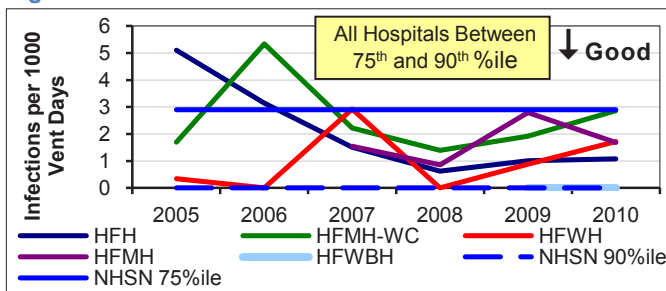


Fig. 7.1-5: Blood Stream Infection Rates—ICU

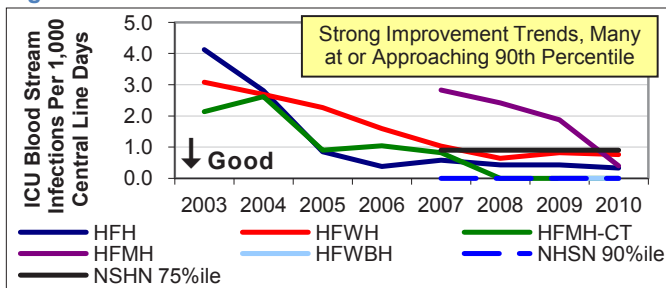
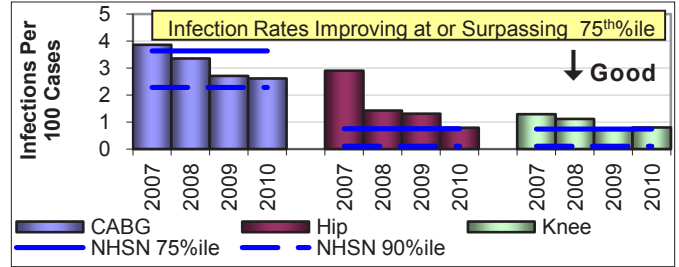


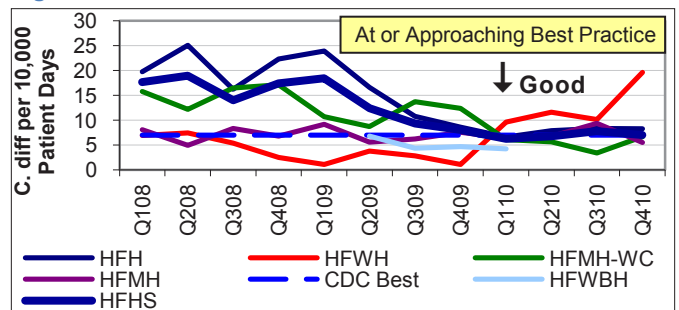
Fig. 7.1-6: Surgical Infection Rates



the SCIP bundle to reduce surgical infections and participates actively as a thought leader in this and other surgical improvement collaboratives. (Fig. 7.1-26).

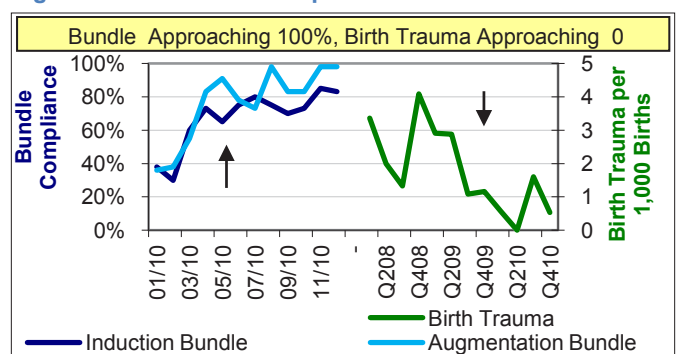
HFH saw a sharp rise in *Clostridium Difficile* (C-Diff), a serious infection, in 2009. A multi-pronged approach of intensive handwashing campaigns, elimination of unnecessary antibiotic use, and changes in cleaning protocols resolved the problem and further improved results over baseline. HFH responded to a single quarter spike in 2010 with stricter protocols that have been deployed System-wide. System rates approach or exceed national best practice (Fig. 7.1-7).

Fig. 7.1-7: C-Diff Rates



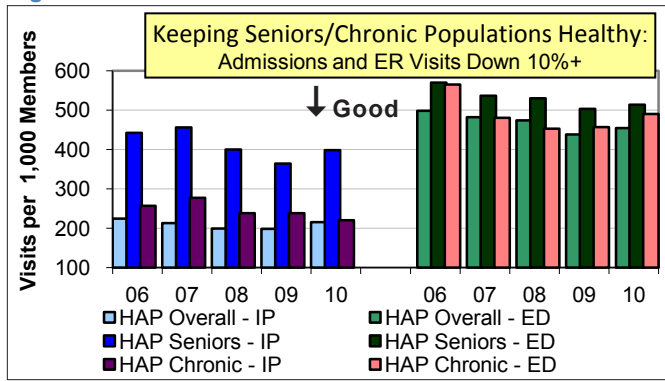
OB elective induction bundles designed to decrease birthing complications are incorporated as part of our care delivery work process. Increased compliance to near 100% has resulted in a dramatic decrease in birth trauma (Fig. 7.1-8). No comparison is available. This is an important area of focus given our increasing market share and commitment to patients throughout their life stages.

Fig. 7.1-8: OB Bundle Compliance & Birth Trauma



Reduction of Admissions, ED Visits and Readmissions. As part of a key SI, we leverage our integrated System to keep patients out of the hospital. Our efforts focus on chronic populations and high risk patients where better coordination of services can have a substantial impact. Process improvements have reduced admissions and ER visits for chronic populations (Fig 7.1-9) through improved care coordination and programs

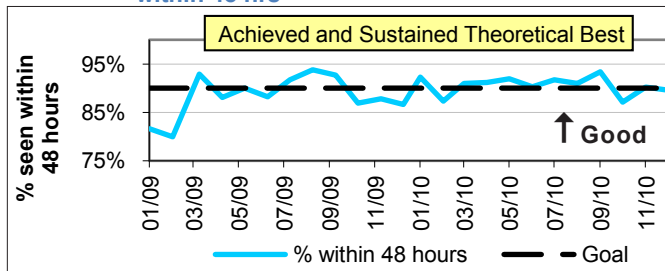
Fig. 7.1-9: HAP Admission & ED Visit Reduction



such as the Catastrophic Senior Case Management (CSCM) and HAP In-Home Care Program (HIHCP). In 2009 we instituted a series of System interventions to improve handoffs and increase care coordination between settings. *HAP and CCS have worked closely with the rest of the System to manage patient care in outpatient settings longer and, as a result, **referrals among BUs** have increased by 150% in two years.

System innovation and vendor collaboration resulted in an assessment tool to systematically identify and flag high-risk patients for readmission. This tool is now used as a best practice at other U.S. hospitals. The high-risk flag shows up in the referral to HHC, improving handoff communication. HHC ensures that all willing patients are seen within 48 hours and usually within 24 (Fig 7.1-10). The goal is not 100% because some patients refuse or do not answer. No benchmark is available.

Fig. 7.1-10: % of Discharge Patients Seen by CCS-HHC within 48 hrs



The combination of services brought to bear for these high risk patients has actually resulted in a lower 30 day readmission rate and higher number of days until readmission for CCS's high risk patients than for non-high risk patients (Fig. 7.1-11) Benchmarks are not available for these measures. CCS-HHC accepts a significantly more acute population than competitors in alignment with System goals to maximize the health and wellness of our total population.

HFHS actively participates in the MI State Action on Avoidable Rehospitalizations (MI-STAAR) initiative to develop/spread best practices. Piloted on congestive heart failure (HF) patients (Fig. 7.1-12), it is now being deployed more broadly.

In addition to focused efforts for high risk and chronic populations, research and education projects are leveraged to decrease readmissions. Internal Medicine residents perform monthly readmission reviews to identify preventable admissions and share best practices. Monthly reviews are attended by CCS and other stakeholders. Overall readmissions have begun to

Fig. 7.1-11: CCS HHC Days to Readmission, High Risk

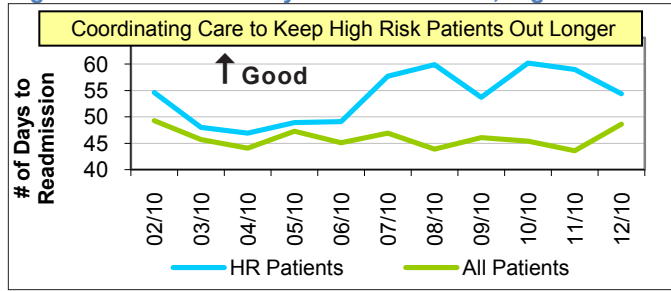


Fig. 7.1-12: MISTAAR Unit 30-Day Readmission Rates

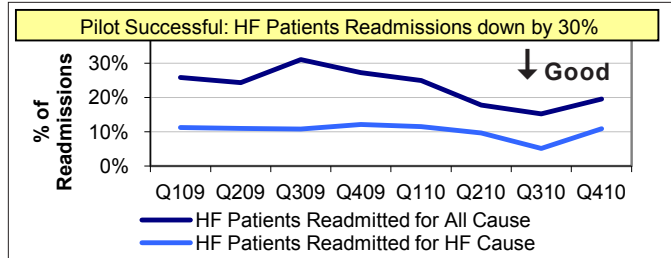
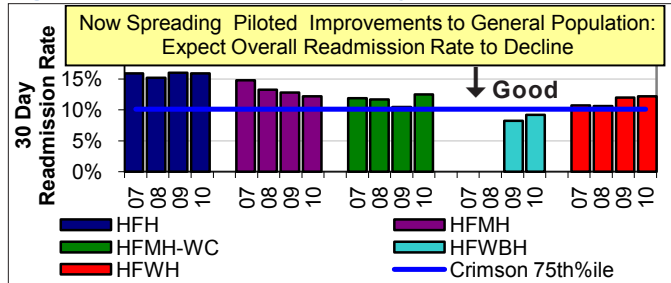


Fig. 7.1-13: Readmissions in 30 Days

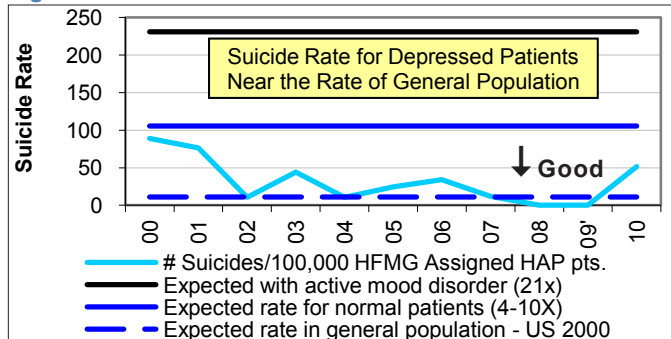


decline in some areas, but this remains a key SI for the System (Fig. 7.1-13).

Clinical Outcomes. All HFHS BUs are working to measure and improve care for specific patient populations. Several of those initiatives are highlighted in Figs. 7.1-14 – 17).

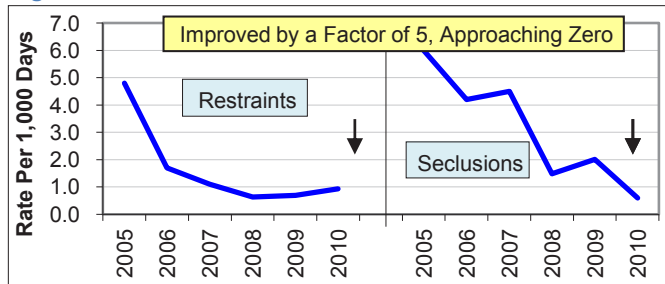
Our cutting edge Perfect Depression Care initiative drove the suicide rate for HFMG-assigned HAP patients to zero (Fig. 7.1-14). Our model won national recognition as a best practice, earning the 2006 TJC Codman Award. Innovations such as open access scheduling and drop-in group visits lowered the suicide rate for patients with depression to near the rate of the general population—an achievement sustained for multiple years. There were 3 suicides in 2010, still one fifth the national rate of suicides in patients in remission, and far below expected rates for this population. Root cause analyses of these suicides resulted in identification and implementation of three additional process improvements.

Fig. 7.1-14: Suicide Rates



A key safety metric for psychiatric inpatients is use of seclusion and restraints. If possible, less risky alternatives for controlling behavior should be used. (Fig. 7.1-15).

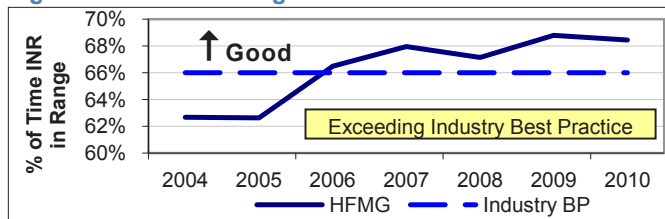
Fig. 7.1-15: Use of Seclusion and Restraints



***Management of blood glucose levels** is tied to lower infection rates and higher medication safety for diabetic patients on insulin drips. HFH created nurse-driven protocols in 2001 that are continually refined based on analysis of our data and published literature. Changes are piloted before being rolled out. The goal is to minimize the number of patient days with blood glucose levels higher than 40. The incidence of unacceptable levels has been cut in half in 2 years. No national benchmark exists for this measure.

HFMG developed one of the nation's first programs to coordinate management of therapy using oral anticoagulators, a commonly prescribed but high-risk medication. We created collaborative "virtual clinics" of nurses and pharmacists, supported by evidence-based protocols and CarePlus, to increase appropriate International Normalized Ratio (INR) ranges (6.1a(2)). Comparative data from published research studies suggest that INR in-range values average 34-47% among patients managed in primary care and 55-60% among patients managed in specialty clinics like ours. By contrast, almost 69% of our patients have INRs in range, an industry best practice (Fig. 7.1-16).

Fig. 7.1-16: INRs in Range



CCS's HHC nurses manage patients in their homes with the goal of keeping them out of the hospital and the emergency room. Despite an increasingly acute population, ***HFHS patients' functional status** is maintained. Metrics such as ambulation and ease of getting in/out of bed exceed the national average for all patients regardless of acuity. This helps patients return to healthier and safer behaviors sooner.

Dialysis. Close collaboration between CCS and HFMG physicians is leading to earlier identification of renal problems and earlier intervention to plan for and place appropriate dialysis access routes. HFHS achieves CMS best practice benchmarks for key dialysis metrics (Fig. 7.1-17).

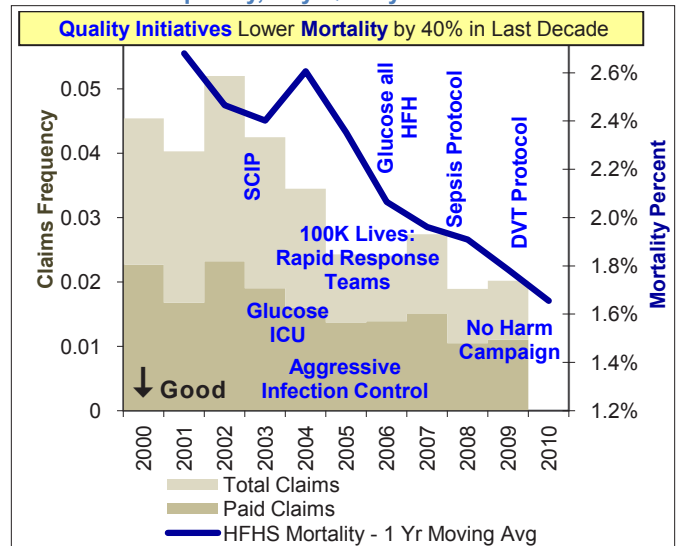
Mortality. Mortality has decreased 40% System-wide over the past decade. We incorporate evidence based approaches, apply our own research, and coordinate care to improve critical out-

Fig. 7.1-17: CCS Dialysis—URR and Hemoglobin Levels

- **Urea reduction ratio (URR)** measures how well blood is cleaned during dialysis. CCS's **URR results have met or exceeded the CMS best practice benchmark for the last 6 years**
- **CMS targets for 80% of dialysis patients to maintain hemoglobin levels** between 10 and 13. Levels that are either too low or too high lead to increased morbidity and mortality. HFHS has exceeded CMS's goal for the past 3 years. In 2010, updated recommendations target 80% exactly (not above or below) for ranges between 10 and 13 to minimize unnecessary treatment which can cause harm. **HFHS achieved CMS updated recommendation in 2010—maintaining exactly 80% in range.**

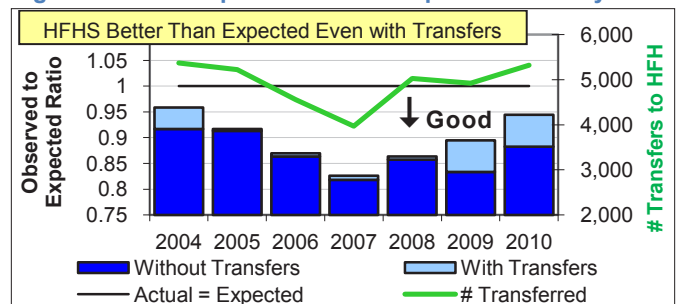
comes. Sample quality initiatives that contributed to the significant improvement in mortality are graphed. These SIs and our EMR have also contributed to a 51% decrease in claims. Claims data lag one year (Fig 7.1-18).

Fig. 7.1-18: System Mortality & Malpractice Claims Frequency, Key Quality Initiatives



Despite impact on mortality rates, HFHS's policy encourages transfers of acute patients into our System to ensure that our community gets the best care possible. Even with transfers, our mortality is better than MI expected (Fig. 7.1-19). ***Four of five HFHS hospitals are in the MI top quartile**, a remarkable accomplishment since Michigan mortality is among the lowest in the U.S.

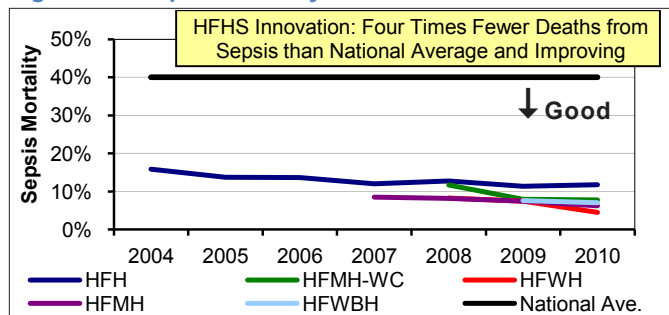
Fig. 7.1-19: MI Hospitals Actual to Expected Mortality



HFH physicians and researchers demonstrated that a bundle of five actions (Fig. 7.1-28) delivered in a timely manner dramatically decreases mortality from sepsis, a serious infection affecting the bloodstream that often leads to multiple organ failure. The bundle was piloted at HFH in 2005, and then spread as a best practice to all System hospitals. In 2007, our approach became the national best practice now used in about 10% of

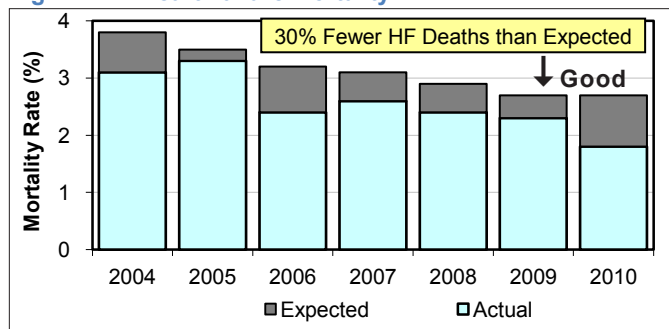
hospitals nationwide. Per IHI, sepsis mortality averages between 30 and 50%. Our rate is 400% better than average (Fig. 7.1-20). No best practice benchmark exists.

Fig. 7.1-20: Sepsis Mortality



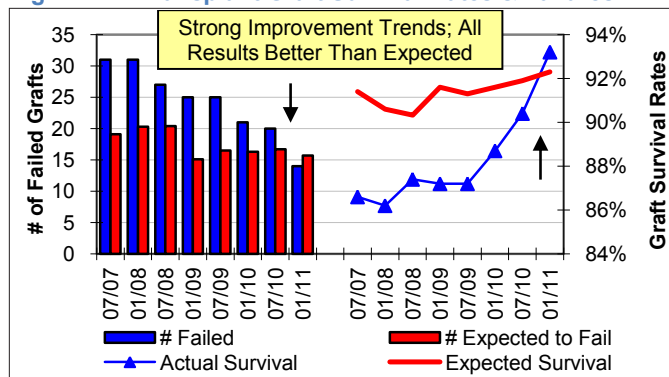
HF is a leading cause of death. HFHS has decreased our mortality rates to 30% less than expected (Fig. 7.1-21).

Fig. 7.1-21: Heart Failure Mortality



Transplant graft survival rates have improved to exceed expected percentages while the number of failed grafts has dropped below expected rates (Fig. 7.1-22). Improvements have been realized through better selection and donor criteria, multidisciplinary rounding, and sooner post-op follow-up.

Fig. 7.1-22: Transplant Graft Survival Rates & Failures



7.1b(1) Operational Effectiveness.

Work Systems: We leverage our integrated System to deliver more value to HFHS stakeholders. Our key processes including **Continuum of Care, Other Integrated System, and Business and Support** demonstrate operational effectiveness.

Work System effectiveness is demonstrated by Figs. 7.1-23 – 25, 7.1-9, and many other results such as 7.1-15, 7.1-20 and throughout 7.5. Medical/surgical length of stay (LOS) remains in the top decile (Fig. 7.1-23, lower is better) despite local economic challenges including fewer Medicaid beds available for post-acute care and increased homelessness. HFHS often

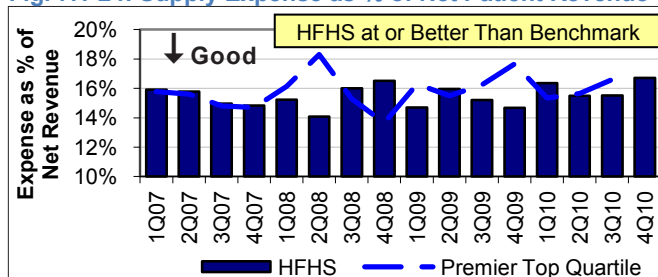
Fig. 7.1-23: Medical/Surgical Length of Stay (LOS)

	'05	'06	'07	'08	'09	'10	Crimson 90th %ile '10
HFH	4.6	4.7	4.7	4.7	4.6	4.6	4.6
HFMH	4.7	4.5	4.5	4.6	4.6	4.6	4.6
HFWH	4.5	4.6	4.5	4.5	4.3	4.4	4.6
HFMH-WC	5.2	5.2	5.2	5.4	4.9	5.0	4.6
HFWBH					3.4	3.5	4.6

keeps such patients in the hospital longer to ensure successful outcomes.

Even with reduced revenue due to increasing uncompensated care (Fig. 7.5-4), supply expense as a % of net patient revenue is stable performing in the top quartile (Fig. 7.1-24). This is due to the success of our System SI which established 12 VATs to reduce supply costs, increase standardization, and maximize utilization, all supported by a new centralized SCM function (6.2b(3)). *Recently, SCM partnered with vendors and surgeons to reduce the **price of implants**, resulting in \$1.4M in annual savings, without compromising quality.

Fig. 7.1-24: Supply Expense as % of Net Patient Revenue

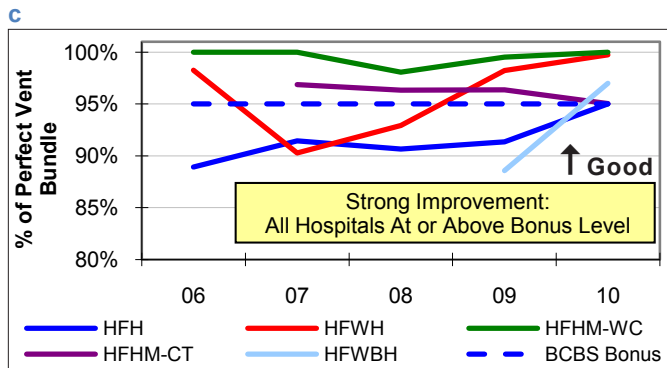


***Cost savings from care coordination:** One example of these savings is the HAP disease management program for members with three chronic diagnoses. Each patient is assigned a case manager or health coach and provided telephone support and monitoring to address issues proactively. This resulted in a net savings of \$21.9M per year and dramatic reductions in IP and ER utilization (Fig. 7.1-9).

***External grant funding** measures our effectiveness in research, which is essential to support our focus on innovation. Our Research Enterprise has attracted more than \$50M in grant funds each year for the past five years, increasing to \$52.5M in 2010. Grants from the National Institutes of Health (NIH) are the gold standard for peer reviewed funding. NIH awarded 78 grants to HFHS scientists, totaling \$20.2M in 2010, putting us in the top 6% of all NIH funded institutions. In addition, HFHS has over 500 New IRBs and over 1,600 open IRBs. In 2010, HFHS researchers achieved 778 publications, an increase of over 75% since 2007.

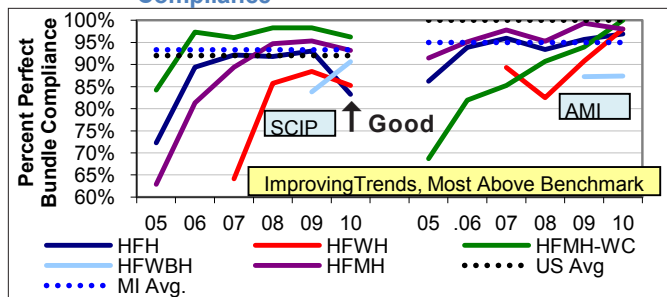
Key Process Results. CMS Compliance Bundles and Core Measures are an essential indicator of health care process effectiveness. HFHS has innovated, piloted, and been an early adopter of many of bundles to reduce complications and save lives (Figs. 7.1-25 – 29). We measure “perfect” bundle compliance; if any part of the bundle is not done, no credit is given. Our performance has improved to 90% or higher for most measures. BCBSM provides a bonus for hospitals reaching 95%, which

many of our hospitals have earned in full each year. Ventilator bundle compliance (Fig. 7.1-25) reduces VAP (Fig. 7.1-4).



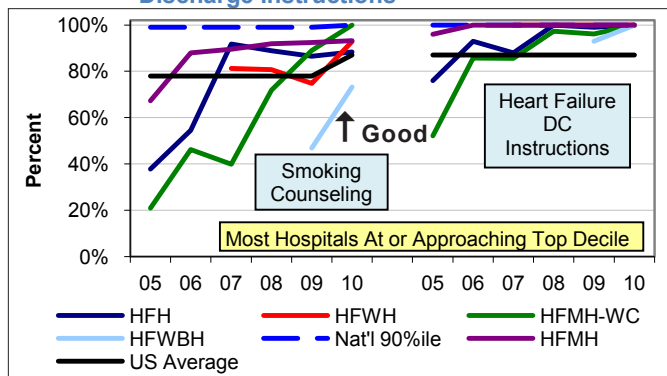
Surgical infections (Fig. 7.1-6) can be fatal. The SCIP bundle (Fig. 7.1-26) decreases the risk of infections and mortality. Compliance improved at all System hospitals, nearing or exceeding the U.S. average of 90th %ile. Compliance with the acute myocardial infarction (AMI) bundle (Fig. 7.1-26), also exceeds benchmark.

Fig. 7.1-26: Perfect SCIP and AMI Core Measure Bundle Compliance



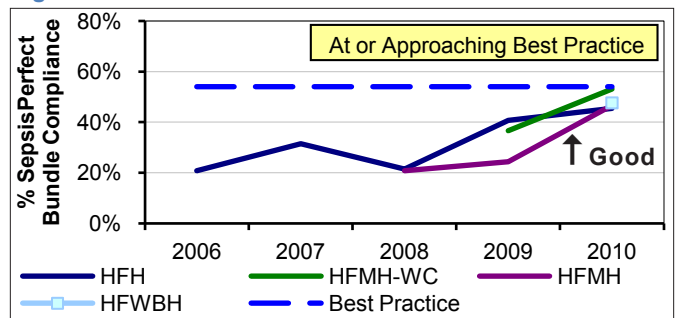
In 2008, nurses System-wide took ownership of an initiative to prevent future complications and promote overall wellness for HF, AMI, and pneumonia (PN) patients. Their innovative improvement strategies involved care coordination across the multidisciplinary team resulting in System-wide improvement and near-perfect results in providing education and counseling to these groups at risk (Fig. 7.1-27).

Fig. 7.1-27: Core Measures: Smoking Counseling and Discharge Instructions



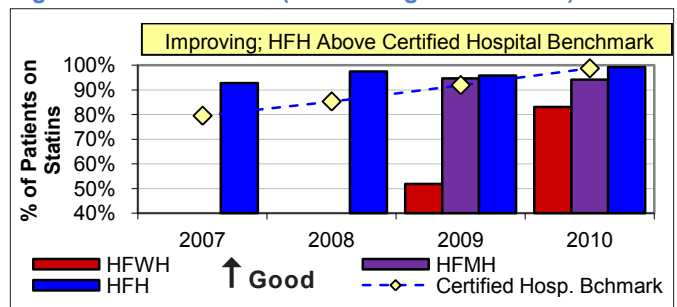
HFHS invented the Sepsis bundle, now the national best practice approach. With sepsis 100% bundle compliance is not possible because one bundle element depends on the patient's response to the therapy. The best reported bundle compliance in the literature is 54% (Fig. 7.1-28).

Fig. 7.1-28: Perfect SEPSIS Bundle



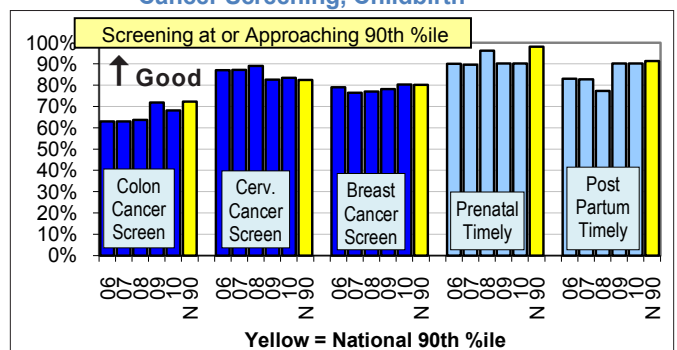
Three HFHS hospitals are among the 20% of MI hospitals that have achieved stroke certification from TJC or DNV. We have improved over the past four years and approach the certified hospital benchmark (Fig. 7.1-29).

Fig. 7.1-29: Stroke Care (% Discharged on Statins)



Health employer data and information set (HEDIS) measures are used by more than 90% of health plans in the U.S. to measure performance of important dimensions of care and preventive services. HAP uses HEDIS to track and improve OP care. *For HEDIS measures overall, HAP scores close to 75th %ile (73.2%) with a score of 72.4%, and HFMG exceeds the 75th %ile with a score of 73.7%. HFHS approaches the national 90th %ile for screening and care timeliness (Fig. 7.1-30). Targeted interventions such as the new EMR preventive services alert system and clinic process redesign have contributed to this success.

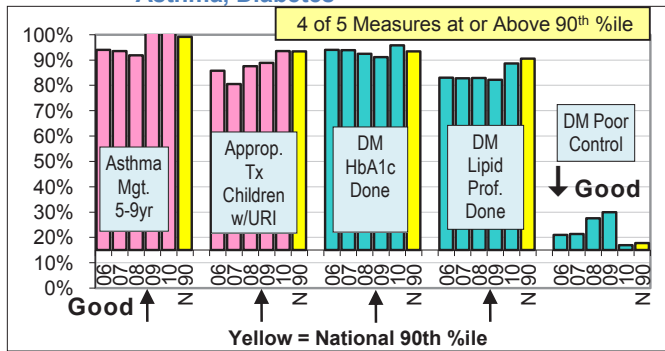
Fig. 7.1-30: HAP & HFMG HEDIS Measures Timeliness—Cancer Screening, Childbirth



A multi-pronged approach to diabetes management (Fig. 7.1-31) focuses on timely blood sugar (HbA1c) and lipids testing and aggressive management of patients whose diabetes is poorly controlled (lower is better for diabetes in poor control).

Pharmacy care management has successfully kept per member per month prescription drug costs from rising faster by

Fig. 7.1-31: HAP & HFMG HEDIS Measures Treatment—Asthma, Diabetes



engaging HFMG to use generic drugs. Generic drug use for HAP members is significantly higher than local pharmacies (Fig. 7.1-32). Our MTM collaboration between HAP, CCS and physicians (6.1b(2)) has achieved significant savings and improved care (Fig. 7.1-33).

Fig. 7.1-32: PMPM Cost & Prescription Generic Use Rates

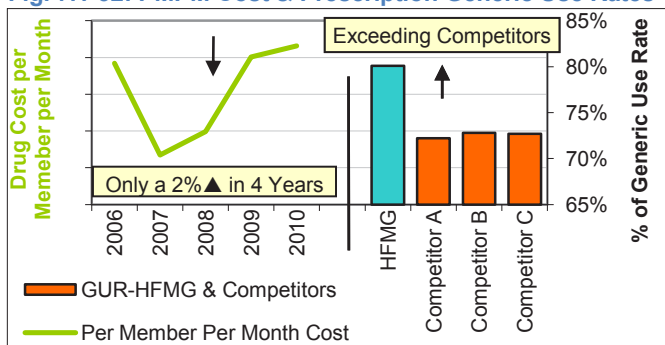


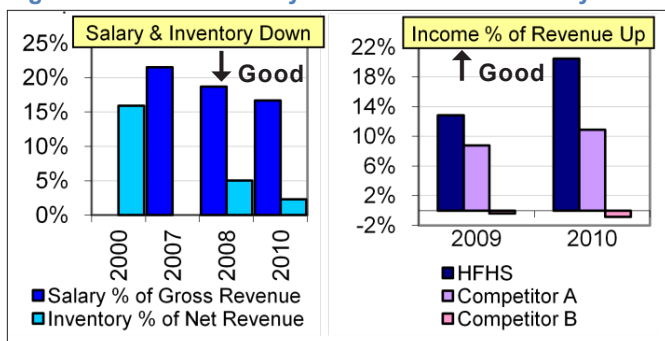
Fig. 7.1-33: Medication Therapy Management Results

- **Over \$4.4M saved** from 2006-2009 in prescription drug costs and medical cost savings
- On average **3.5 interventions** are recommended per patient and **80% of HFMG interventions** (75% of total patients) **accepted**.
- Arthritis had a statistically significant decline in gastrointestinal bleed rate pre- to post-enrollment (**60% relative risk reduction**)
- **92%** of enrollees **would recommend MTM**, **87% agreed** that total drug **cost was reduced** while maintaining high quality care
- **Enrollees increased from 22% to 27%** from 2009 to 2010
- **URAC 2010 gold award for best practice** for consumer empowerment and protection

CCS has partnered with suppliers to reduce durable medical equipment inventory and increase productivity resulting in a dramatic increase in net income as a percent of revenue compared to competitors (Fig. 7.1-34).

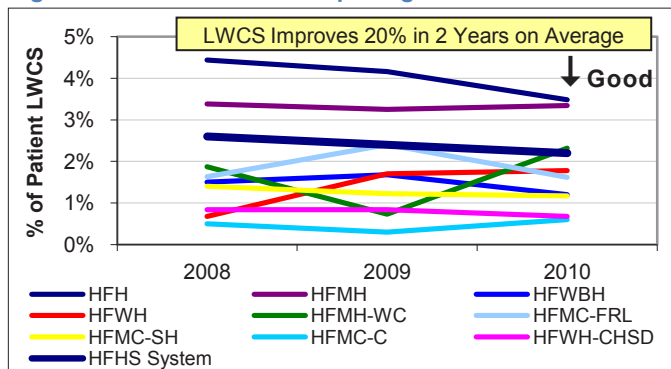
Increasing **access to care** is a key SI. HFMG partners with the HAP Access Task Force to continually monitor and analyze

Fig. 7.1-34: CCS Inventory Reduction & Productivity



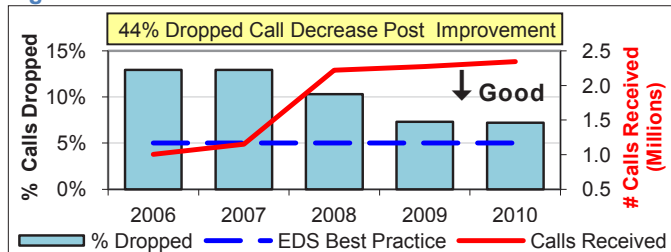
measures to drive improvement. A key system metric is ED-Left Without Completing Service (Fig. 7.1-35), as treatment completion is essential to improved outcomes. In 2010, HFH ED began a Lean effort resulting in 20% improvement. Service improvements, such as creating the Contact Center, on-line schedule requests, e-Visits, and self-scheduling, contributed to this improvement.

Fig. 7.1-35: Left Without Completing Service



In 2007 the Contact Center Steering Committee redesigned operations based on EDS's industry best-practice technology and processes. As a result, the Contact Center now fields 1.2M more calls while decreasing dropped calls by 44% in two years (Fig. 7.1-36).

Fig. 7.1-36: HFMG Clinic Contact Center—Unanswered Calls



*HFHS created **online appointment requests**, which have increased over 60% in 4 years. In 2007, we began offering e-Visits and volumes have grown to 1,600 per year. Patient self-scheduling began in 2008 to increase mammography access. Patients can book exams for any System facility using henryford.com. Self-scheduling has increased 8 fold in two years.

An important measure of patient throughput and timely treatment is laboratory turnaround time (TAT). System-wide success achieving the most important ED lab result, complete blood count (CBC), far exceeds our target of 90% completed within 30 minutes. Results of "stat" orders—those the doctor needs most urgently—are consistently delivered in less than 30 minutes at all labs throughout the System (Fig. 7.1-37). There is no industry standard for these measures. Improvements were achieved through the System-wide Lab Lean Journey.

Housekeeping efficiency is one driver of patient throughput. Although increases in the number of beds cleaned has affected our overall turnaround time, the System bed turnaround time remains below HCAB benchmark (Fig. 7.1-38).

***HAP claims processing** measures ability to process claims with no manual intervention. This increases timely claims pro-

Fig. 7.1-37: % ED CBCs and STAT Test in 30 Minutes

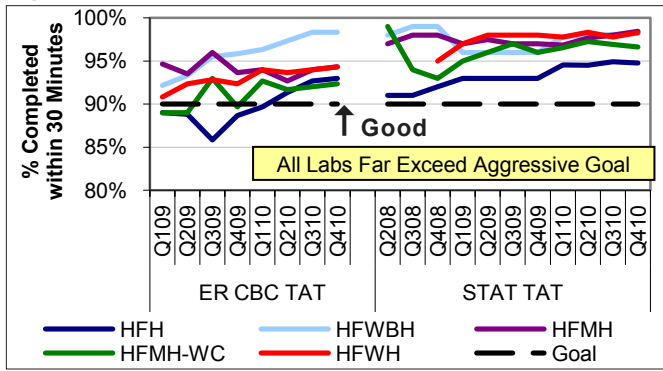
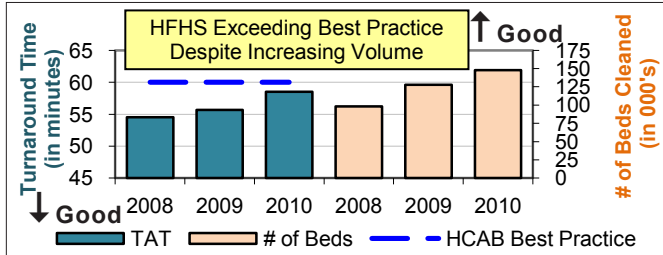


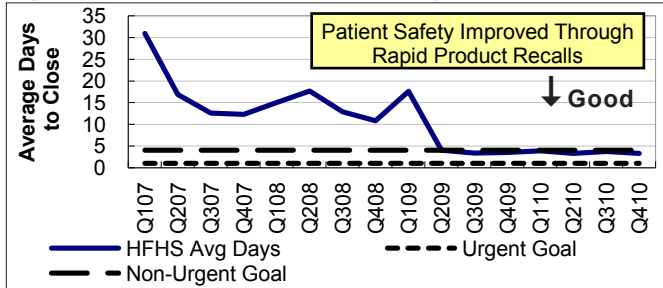
Fig. 7.1-38: Bed Turnaround Time



cessing and member/provider satisfaction. HAP has improved to exceed 90% processing without intervention in 2010.

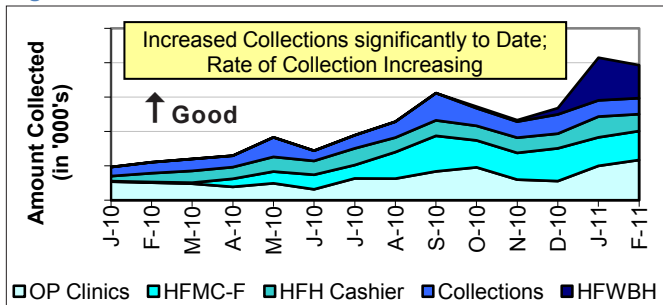
We improve patient safety by using a web-based alert tool to notify staff of product recalls so defective products can be removed and replaced quickly. Process improvements have led to dramatic improvements in case closure timeliness (7.1-39) aligned with our No Harm campaign and associated SIs.

Fig. 7.1-39: Product Recalls Alerts, Days to Close



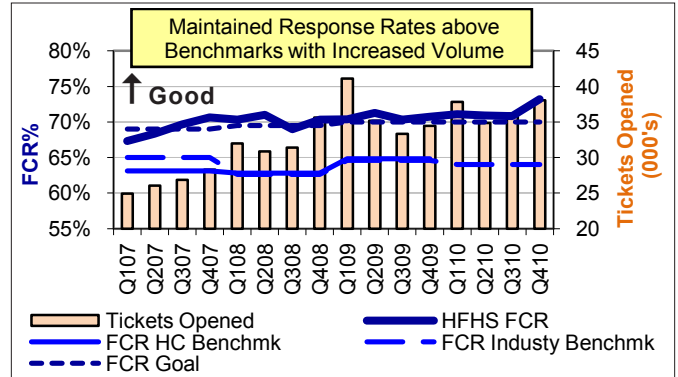
Revenue Cycle improvements in late 2009 have helped identify prior patient balances and co-pays due at time of service. This has led to reduced billing process rework and increased collections and patient convenience. Efforts to date have increased collections and decreased days in Accounts Receivable by 3% (Fig 7.1-40).

Fig. 7.1-40: HFHHN Cash Collections at Point of Service



Despite the continuous increase in Help Desk call volume, first call resolution (FCR) performance has been at or above all benchmarks since Q3 2007 (Fig. 7.1-41). *HAP's Client Services Division has exceeded its **first call resolution** goal of 92.0% since 2006, never performing below 94.7%. *HFHS has sustained 99.9% **availability of the patient administration system** (registration, scheduling, and billing) since Q4 04 and more than 90% of issues are resolved within eight hours. This supports safe, efficient care delivery.

Fig. 7.1-41: IT Help Desk First Call Resolution



7.1b(2) Emergency Preparedness HFHS BUs meet and often exceed the requirements of regulatory agencies (Fig. 7.1-42). The number of emergency drills at HFH has been significantly reduced due to the planning and execution of large disaster drills, implemented successfully in only a few hospitals in the country. In 2007, HFH was named one of five Best-Practice Preparedness hospitals in the U.S. by the CDC based on our readiness for response to a community disaster.

Fig. 7.1-42: Emergency Preparedness

		2007	2008	2009	2010	Req'd
Emergency & Community Drills	HFH	10	13	15	5	3
	HFMG	47	35	36	33	3
	HFMM	4	4	6	8	3
	MFMH-WC	2	2	3	10	3
	HFWH	2	3	4	3	3
	HFMBH			3	18	3
Fire Drills	HFH	88	87	77	66	66
	HFMG	78	67	52	66	50
	HFMM	36	36	36	24	24
	MFMH-WC	12	12	12	12	12
	HFWH	36	35	36	35	12
	HFMBH			10	14	12

7.1c. Strategy Implementation HFHS leads the nation in harm reduction, our top priority (Fig. 7.1-1). We are consistently recognized for innovative, high quality patient care (Fig. 7.4-2). Accomplishment of our SOs and SIs is demonstrated by our results and the sustainability of our strategic investments to grow both volume and market share. In spite of the local economy and reductions in population, HFHS has invested in our community by building the new HSWBH and conducting major renovations at HFH. For over five years, we have surpassed our aggressive growth goals while remaining financially strong

and maintaining our A1 stable bond rating. In addition, further integration with HAP drove significant volume to HFHS hospitals. From 2007 to 2010, HFHS led all competitors with 12% IP growth, gaining 10,685 admissions. During the same period, all of SEM grew by only 8,607 admissions. HFHS effectively captured all of these and over 2,000 more, for a total of 99,798 admissions in 2010 (7.5a(2)).

Consistent with our “can-do” spirit, we set aggressive targets for critical measures to force innovation. Fig. 7.1-43 shows a representative sample connected with key SOs. Our two areas of red have aggressive performance improvement plans with assigned resources to address (Fig. 2.1-2, 3.1b(1)).

Fig. 7.1-43: HFHS Key Dashboard Goal Achievement

PILLAR	PERFORMANCE MEASURE	2010*
People	Total Employee Turnover (Fig. 7.3-3)	Yellow
	Employee Engagement (Fig. 7.3-10)	Yellow
Service	Customer Engagement - % Top Box, Likelihood to Recommend (Fig. 7.2-3,8,10)	Yellow
	HCAHPS (Fig. 7.2-5)	Red
Quality	Harm Prevalence (Fig. 7.1-1)	Green
	Readmissions (Fig. 7.1-13)	Red
Growth	Admission Volumes (Fig. 7.5-9)	Green
	Inpatient Market Share (Fig. 7.5-11)	Green
	HAP Membership (Fig. 7.5-15)	Green
	OP Visit Volume (Fig. 7.5-14)	Green
Research/Education	NIH-Funded Research Grants/Contracts (7.5a(1)*)	Green
	Trainee Satisfaction (7.3-14)	Green
	Ready for Independent Practice (Fig. 7.3-14)	Green
Community	Community Benefit (7.4-11)	Green
	Visits to Community Clinics (Fig. 7.4-8)	Green
Finance	System Operating Net Income (Fig. 7.5-1)	Green
	Cost per Unit (Fig.7.5-2)	Green
	Philanthropic Donor Renewal (Fig. 7.4-7)	Green
	Philanthropic Cash Collected (Fig. 7.5-8)	Green

*Green: target achieved; Yellow: within 5%, Red: below target

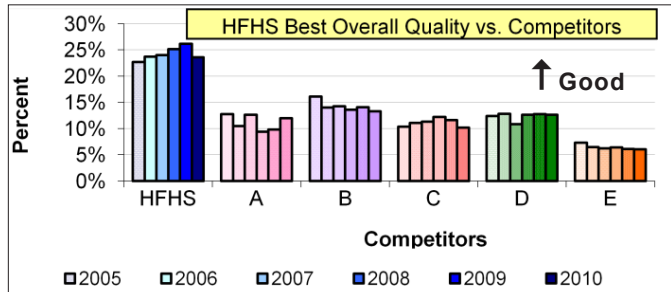
7.2 Customer-Focused Outcomes

7.2a(1) Patient and Stakeholder Satisfaction and 7.2a(2) Patient and Stakeholder Engagement. Consistent with THFE, we strive for excellence in patient satisfaction and engagement. Results here are grouped by work system, combining satisfaction and engagement throughout. This reflects our shift in focus from satisfaction to engagement and our commitment to compare ourselves to others at a higher level of performance (3.1b(1)). Many of our System results are in the top decile, including Ambulatory, CCS, and HAP. Our community continues to recognize HFHS above our competitors for best overall quality (Fig 7.2-1). Our community hospitals perform at or above 75th percentile for most measures. HFH has improved steadily since 2002, even though lack of private rooms (Fig.7.2-6) and a more crowded environment account for a significant portion of the difference compared to the other hospitals. We are now applying the same approaches used to improve Quality and Safety (6.2b(4)) over the past several years to improve patient engagement and ensure a consistently remarkable experience

throughout the System. Results are shown by work system due to space limitations; BU results are available on-site.

NRC’s annual market (i.e., current, former, and potential patients) preference survey provides community perception of HFHS as an integrated system (Fig. 7.2-1). In Wayne County, where 68% of our patients live, HFHS is the preferred health system for “Best Overall Quality” six years in a row.

Fig. 7.2-1: Best Overall Quality—System Integration (NRC)



Inpatient satisfaction and engagement. Our IP likelihood to recommend *mean score* approaches the 75th percentile for all hospitals (Fig. 7.2-2). Consistent with our focus on engagement, only top box likelihood to recommend results are presented for other work systems (Fig. 6.1-1). IP top box likelihood to recommend (Fig. 7.2-3) and satisfaction (Fig. 7.2-4) continue to improve, as a result of hourly nurse rounding to address issues in real-time, service excellence assessment and training, and our Service Champion programs.

Fig. 7.2-2: IP Likelihood to Recommend (PG)

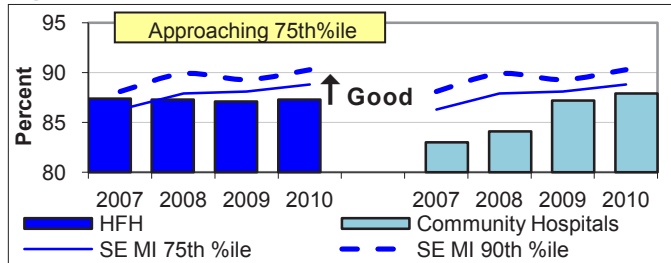


Fig. 7.2-3: IP Top Box Likelihood to Recommend (PG)

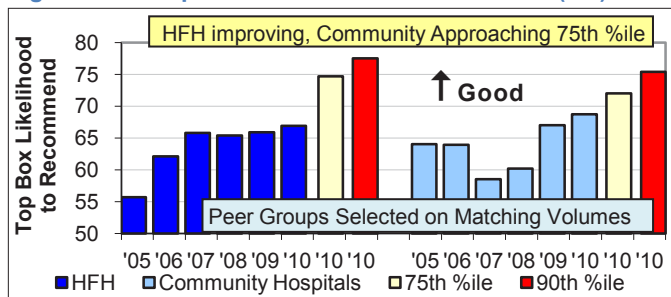
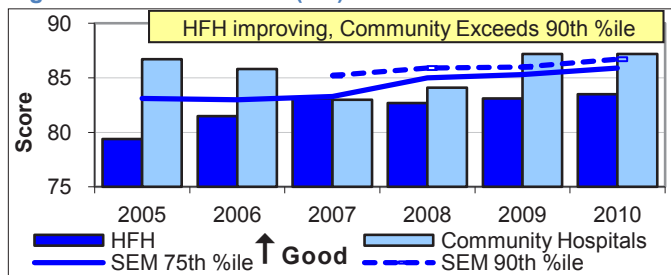
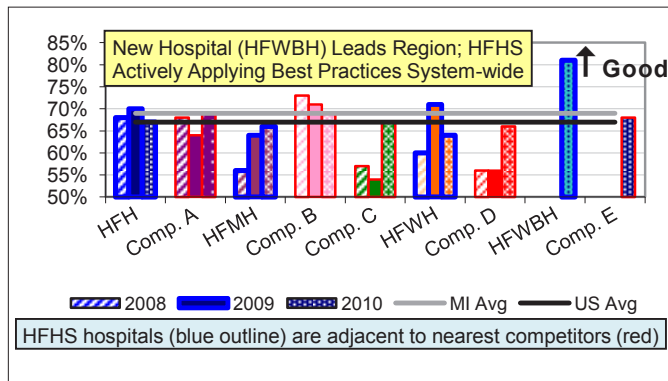


Fig. 7.2-4: IP Satisfaction (PG)



HCAHPS results (Fig. 7.2-5) allow comparisons to competitors in each market. Our hospitals generally score higher than our immediate competitors in each market, growing our market advantage. HFWBH and Providence (new hospitals) have 2010 data only.

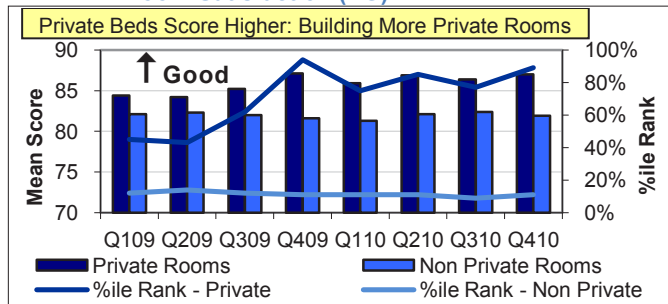
Fig. 7.2-5: IP Overall Satisfaction Rating (HCAHPS)



HFWBH is a beta site for many new initiatives, including 24/7 on-demand food services/meals and 100% private rooms. Innovations have resulted in better-than-benchmark patient satisfaction in all survey areas. * **HFWBH exceeds 90th percentile for most key PG questions.** Collaborative efforts are underway to deploy HFWBH best practices System-wide.

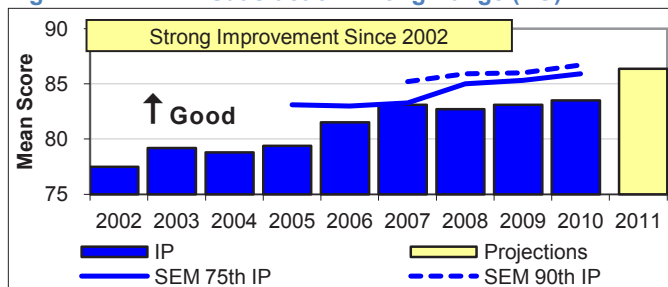
We perform root cause analyses to prioritize opportunities to improve service satisfaction. HFH patients in private rooms score us about 5 points higher, accounting for a significant shift in %ile ranking. HFH private rooms now achieve 80th %ile overall. At HFH, we will move from about 50% private beds to 75% over the next five years (Fig. 7.2-6).

Fig. 7.2-6: HFH Correlation of Private vs. Non-Private Room Satisfaction (PG)



Since 2002, HFH IP satisfaction has improved significantly. While not at the 75th %ile, IP scores are now in the high 80s. We project significant improvement in the next 2 years due to efforts underway (Fig. 7.2-7).

Fig. 7.2-7: HFH IP Satisfaction—Long Range (PG)



Emergency Department satisfaction and engagement. Patients choose EDs based on both quality and convenience. Our community-based ambulatory EDs are less crowded and often more convenient to access. We are working to replicate their strong results throughout the System. ED service improvements focus on reducing wait times, more communication about delays, and use of volunteers to address patients' non-clinical needs (Figs. 7.2-8, 9). Ambulatory Centers are at the 90th %ile, and SE Leaders are identifying best practices from ambulatory sites that can be adopted at hospital EDs.

Fig. 7.2-8: ED Top Box Likelihood to Recommend (PG)

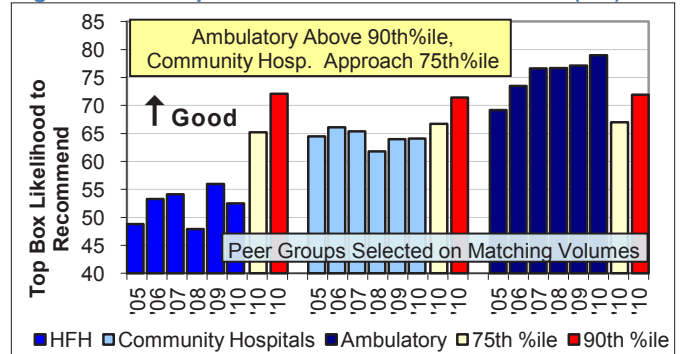
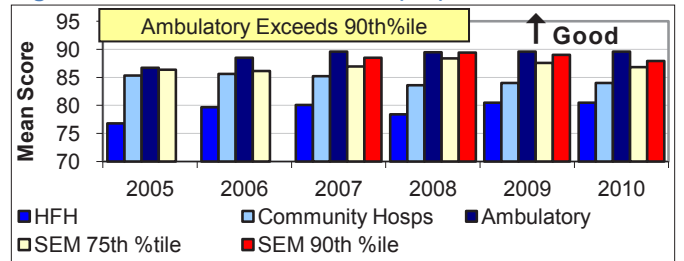


Fig. 7.2-9: ED Satisfaction Overall (PG)



Ambulatory Surgery satisfaction and engagement. (Figs. 7.2-10, 11). Ambulatory surgery top box engagement is strong for ambulatory sites and community hospitals. HFH began an SI in 2009, in collaboration with other System departments and SE Leaders, to improve scores through better coordination of care before surgery and improved post-op discharge instruc-

Fig. 7.2-10: Ambulatory Surgery Top Box Likelihood to Recommend (PG)

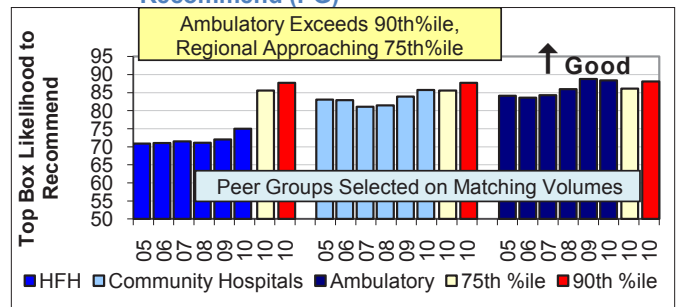
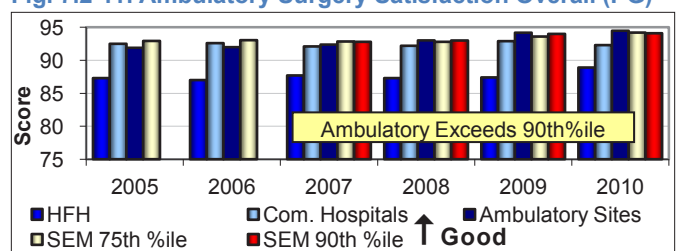


Fig. 7.2-11: Ambulatory Surgery Satisfaction Overall (PG)



tions, including wound care at home. These efforts resulted in improved Q1 2010 scores.

Outpatient Medical Practices satisfaction and engagement. OP likelihood to recommend (Fig. 7.2-12) is an important component of the patient’s overall perception of the System and essential to drive volume in other areas. Most areas are approaching the 75thile or higher. Communication is a key customer requirement and continues to be a focus for improvement, and HFMG OP satisfaction (Fig. 7.2-13) has improved in part due to Contact Center service improvements (Fig. 7.1-36).

Fig. 7.2-12: OP Likelihood to Recommend (PG)

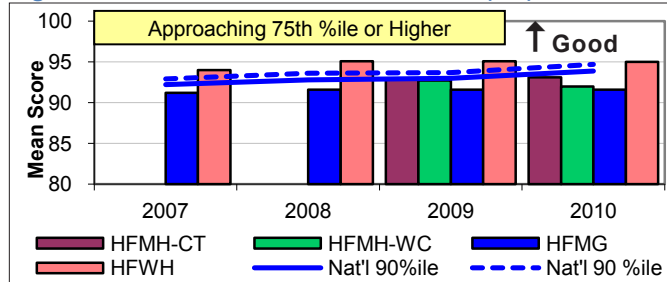
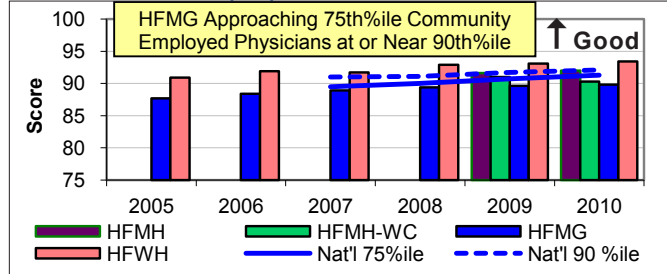
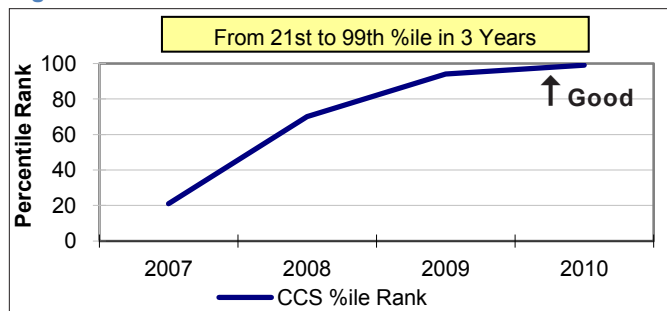


Fig. 7.2-13: OP Medical Group Practice Satisfaction—Overall (PG)



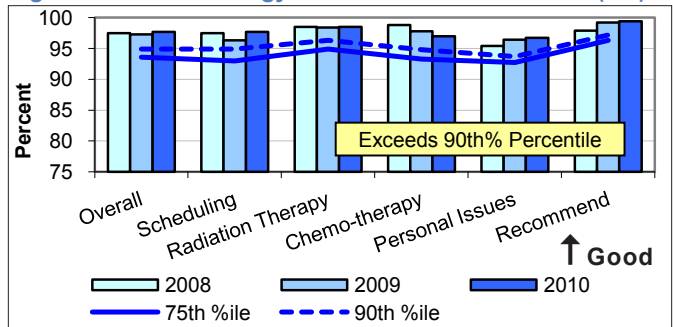
Community Care Services. Satisfaction and engagement with CCS increases engagement with the System as HFHS plays a larger role in the community’s health and well being. CCS is rated highly by our patients (Fig. 7.2-14). The remarkable increase in overall patient satisfaction from the 21stile to 99thile in three years is a result of a focused SI called the Patient Engagement Program. Key elements are being replicated throughout the System.

Fig. 7.2-14: CCS Patient Satisfaction



In 2008, CCS oncology programs began using PG. The Josephine Ford Cancer Center–Downriver, a community based oncology center, earns consistently high engagement results through exceptional service, such as offering concurrent therapies to patients receiving both radiation and chemotherapy treatments (Fig. 7.2-15).

Fig. 7.2-15: OP Oncology Patient Satisfaction—CCS (PG)



HAP. Overall plan satisfaction, as measured by CAHPS, increased from 65% in 2003 to 78% in 2009, better than the NCQA 90thile (Fig. 7.2-16). Access to specialty care when needed drives overall member satisfaction and was a focus of HAP’s network-specific referral process improvements. While no benchmarks exist, HAP made huge gains from 2003 to 2009 in specialty care access satisfaction (Fig. 7.2-17).

Fig. 7.2-16: HAP Overall Satisfaction (CAHPS)

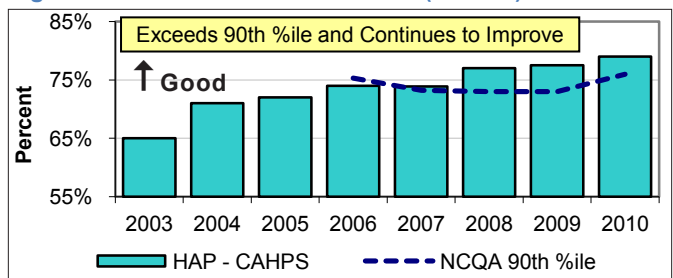
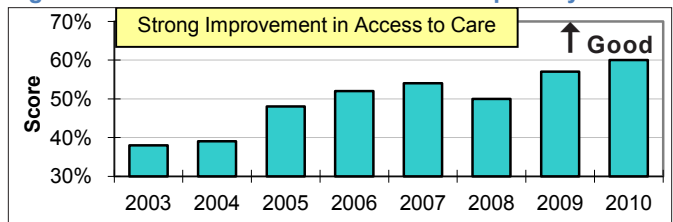
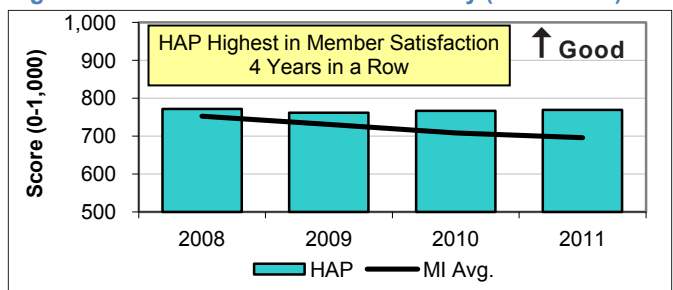


Fig. 7.2-17: HAP Member Satisfaction with Specialty Access



HAP was rated “Highest in Member Satisfaction among Commercial Health Plans in Michigan” for the fourth consecutive year according to the J.D. Power and Associates’ 2011 U.S. Member Health Insurance Plan Study (Fig. 7.2-18). The JD Power study measures member satisfaction of 137 health plans in 17 regions throughout the U.S. HAP’s 2011 performance increased, with a score of 769 on a 1,000-point scale, which dramatically exceeds the Michigan average score of 696. “Satisfaction among members in integrated health plans, such as Health Alliance Plan and Kaiser Foundation Health Plan, averages 741

Fig. 7.2-18: US Member Health Plan Study (JD Powers)

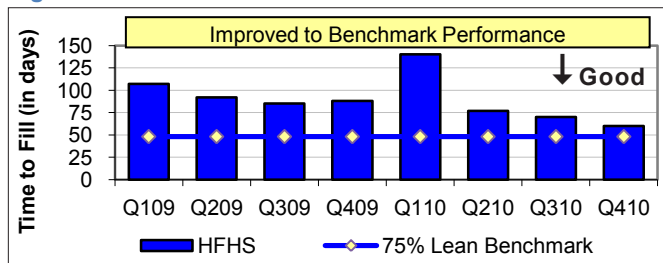


on a 1,000-point scale, compared with 691 among members of plans where care is not integrated.” Results for additional satisfaction surveys for HAP members are available on site.

7.3 Workforce-Focused Outcomes

7.3a(1) Workforce Capability and Capacity. Position time-to-fill improved through expanded outreach, improved branding, and automation of key hiring process steps (Fig. 7.3-1). In Q1 2010, a one-time backlog of requests increased time-to-fill when we closed a small hospital and instituted a temporary System-wide hiring freeze in order to maximize internal transfer opportunities.

Fig. 7.3-1: Time to Fill

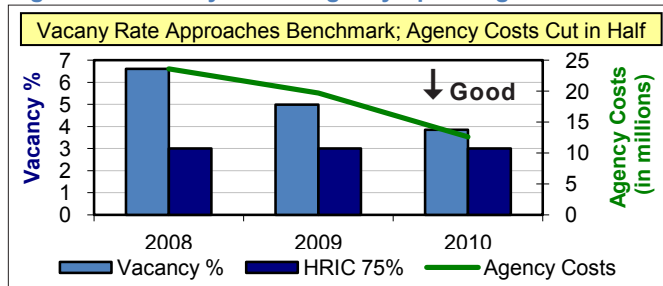


Scoring high on annual employee performance reviews demonstrates workforce capability to meet System needs. * 98% of employees evaluated in 2010 met or exceeded expectations, achieved through our multi-year focus on talent selection, development, and promotion.

* **Recruitment rate** is an indicator of hiring activity, which determines whether HR is meeting organization staffing needs. The recruitment rate rose in 2009 to meet staffing requirements to open HFVBH, but improved in 2010 to achieve Saratoga’s 75th %ile.

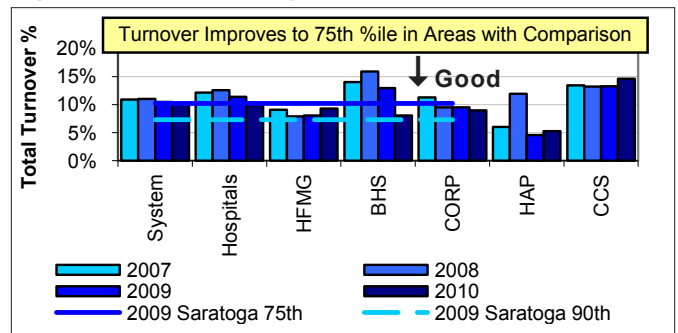
A drop in our vacancy rate from over 6% in 2008 to 4% in 2010 also reduced agency spending by half. These favorable results were achieved as operations and HR leaders partnered to eliminate agency staff or convert them to employees. 2010 results approach 75th %ile (Fig 7.3-2).

Fig. 7.3-2: Vacancy Rate & Agency Spending



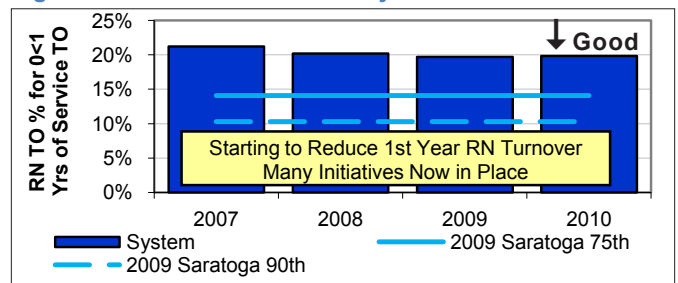
In 2010, turnover equaled or beat the Saratoga 75th %ile for all areas with benchmarks, with significant three-year improvement trends for hospitals and BHS (Fig. 7.3-3). While no benchmarks are available, research shows retail and home care services, key components of CCS, are businesses that typically experience high turnover. Our workforce retention strategies help us reduce turnover and retain critical skills and organizational knowledge. Of our current workforce members, 38% have been promoted or transferred internally.

Fig. 7.3-3: Overall Employee Turnover



Reducing voluntary turnover for critical-to-fill positions, such as RNs, most of whom work in our hospitals and HFVG medical centers, is a key SI for HRET. Voluntary RN turnover is approaching the Saratoga best quartile (Fig. 7.3-4).

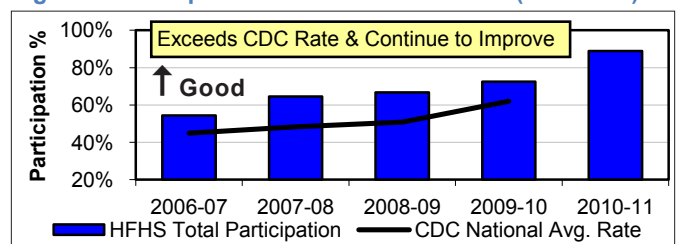
Fig. 7.3-4: First Year RN Voluntary Turnover



* **Diversity, Inc. rated HFHS #1 for diversity in health care** in 2010, the first year this recognition was available. Our total score is a weighted average of four key areas: CEO Commitment, Human Capital, Corporate and Organizational Communications, and Supplier Diversity. In addition, HFHS has received many recognition awards for diversity and workplace culture such as: Detroit Free Press—Top Workplaces (2009-2010); Michigan Business & Professional Association—101 Best & Brightest Places to Work, Elite Awards (2008-2010); Institute for Diversity in Health Management—Best-in-Class Leadership & Governance (2010). Workforce diversity helps us meet patient needs, build a healthy culture, and reflect our communities.

7.3a(2) Workforce Climate. Immunizations protect our employees, patients, and visitors, and support a safe, healthy work environment. (Fig. 7.3-5).

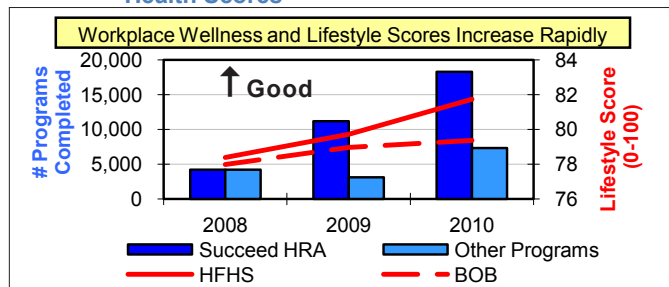
Fig. 7.3-5: Workplace Health: Immunizations (Flu Shots)



Participation in wellness programs has increased steadily. In 2010, to qualify for HE (5.1b(1)), employees had to complete an HRA, which doubled participation in this program. HRA Lifestyle scores summarize the impact of healthy behaviors on future disease rates. HFHS scores have steadily increased and now surpass the vendor’s book of business (BOB). The 2-point

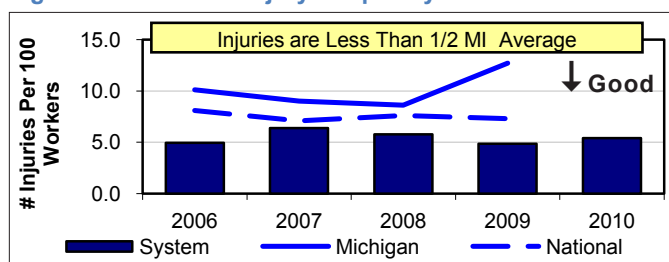
increase from 2009 to 2010 translates to about \$6M in savings: \$1M in avoided health care costs, and \$5M in productivity improvement (Fig 7.3-6).

Fig. 7.3-6: Workplace Wellness Programs & HRA Lifestyle Health Scores



Our rate of recordable employee injuries falls significantly below comparisons. RadicaLogic helps us identify, analyze, and take proactive action to prevent recurrence (Fig. 7.3-7). *As part of the No Harm Campaign, and our AHA Safety fellowship, we have actively worked to increase **incident reporting for employee safety events** and have achieved a 67% increase in 2010 while decreasing actual harm events.

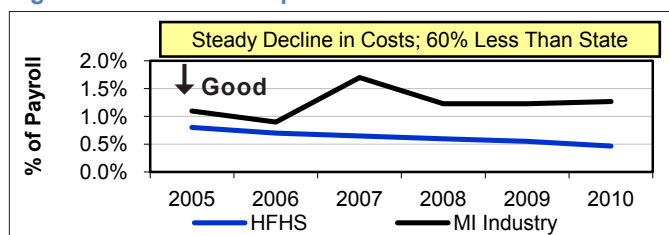
Fig. 7.3-7: MIOSHA—Injury Frequency



***Employee Sharps injuries** have declined 30% in the past year through BU-level OPRs and targeted improvements in clinical areas with high levels or poor trends.

Work-related injury costs declined steadily to 60% less than the MI comparison in 2010 due to our Occupational Medicine and Transitional Work Program that keeps injured employees working safely while they recover (Fig. 7.3-8).

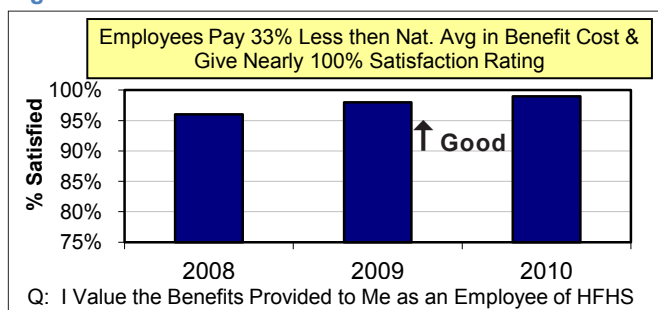
Fig. 7.3-8: Workers Compensation



***Security incidents** for public order crimes at the Detroit campus (i.e., weapons, disorderly conduct, trespassing) have been cut in half in 7 years, from 659 in 2003 to 324 in 2010, meaning a safer environment for our workforce and patients.

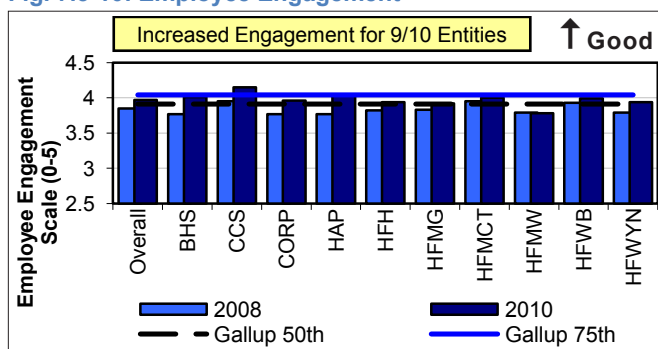
Annually during open enrollment, we survey employee satisfaction with benefits. Satisfaction rose from 96% in 2008 to nearly 100% in 2010 (Fig. 7.3-9).

Fig. 7.3-9: Benefits Satisfaction



7.3a(3) Workforce Engagement. In keeping with our engagement focus, we adopted the Gallup Q12 in 2008, replacing the Gantz-Wiley Satisfaction Survey, and administer it to all employees every 18 months. Scores improved in 2010 in Corporate Services and 8 of 9 BUs (Fig. 7.3-10). Managers developed Impact Plans to address opportunities and leverage strengths. We are currently studying high-performing units and transferring their practices to units below the 50th %ile data by site and manager are AOS.

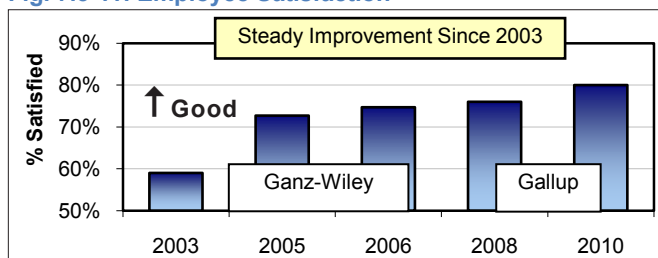
Fig. 7.3-10: Employee Engagement



*From 2008 to 2010, the % of “engaged” employees (those who answered “strongly agree”) rose for each of the 12 Gallup items, and by 5% or better for 8 of 12. Favorable changes reflect the **success of our approaches**, such as our focus on learning and development (35% to 45%), communication skills (26% to 31%), and alignment of organizational and workforce goals (39% to 44%).

With our Gallup partner, we developed a metric to compare Gallup and Gantz-Wiley overall satisfaction results, which rose from 60% in 2003 to 80% in 2010 (Fig. 7.3-11).

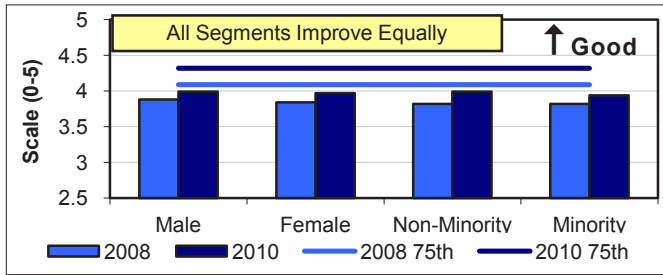
Fig. 7.3-11: Employee Satisfaction



***2010 Volunteer engagement surveys** demonstrated high levels of volunteer engagement and satisfaction in all BUs. Scores ranged from 4.3 to 4.6 on a scale of 1-5 System-wide. Satisfaction (% satisfied or very satisfied) ranged from 78% to 87%.

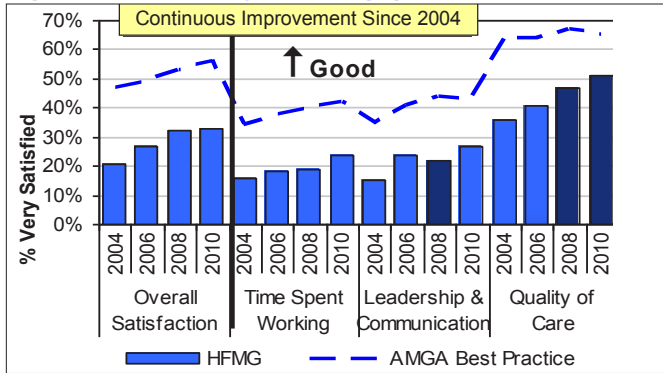
Engagement scores in key demographic segments increased from 2008 to 2010 and were similar across segments, demonstrating our effectiveness in engaging diverse segments of the workforce equally (Fig. 7.3-12).

Fig. 7.3-12: Minority Engagement



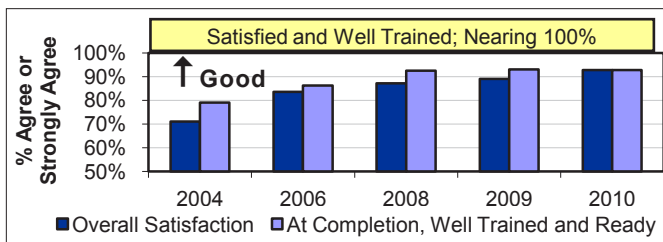
The AMGA survey compares HFMG with similar group practices across the U.S. Overall engagement and all 3 key drivers steadily increased since 2004 (Fig. 7.3-13).

Fig. 7.3-13: HFMG Physician Engagement



We measure satisfaction of physician trainees at HFH with an internal survey geared to their unique needs and expectations. From 2004 to 2010, overall satisfaction increased from 71 to 93, and feeling well-trained and ready, from 79 to 93 (Fig. 7.3-14).

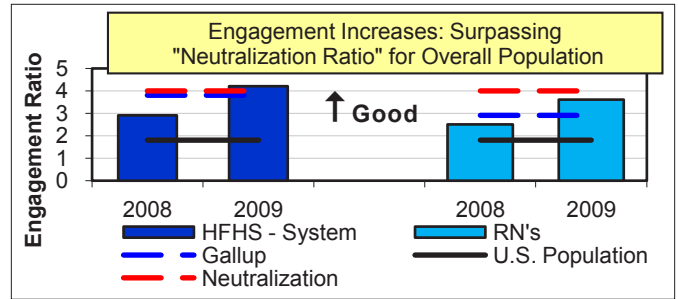
Fig. 7.3-14: Trainee Satisfaction & Preparation



The Gallup engagement index represents the ratio of “engaged” to “disengaged” employees. For HFHS employees overall, the ratio improved significantly, from 2.9:1 in 2008 to 4.2:1 in 2010, surpassing the Gallup health care comparison. Gallup’s “neutralization ratio” is 4.0:1—i.e., it takes four engaged employees to offset the impact of one disengaged employee. The ratio in Nursing also improved, from 2.5:1 in 2008 to 3.6:1 in 2010, also surpassing the Gallup RN comparison (Fig. 7.3-15).

HFHS employees can provide financial assistance to other employees by making financial contributions to Helping Hands or donating CTO hours. Both contributions increased from

Fig. 7.3-15: Overall and Nursing Engagement Index



2008 to 2010, with CTO donations doubling, demonstrating employee engagement (Fig. 7.3-16).

7.3a(4) Workforce Development Steady increases in education hours since 2006 demonstrate HFHS’s commitment to development, despite economic challenges. Satisfaction with offerings also steadily increased to near-perfect levels (Kirkpatrick Level 1 Result: Fig 7.3-17).

Fig. 7.3-16: Employees Helping Other Employees

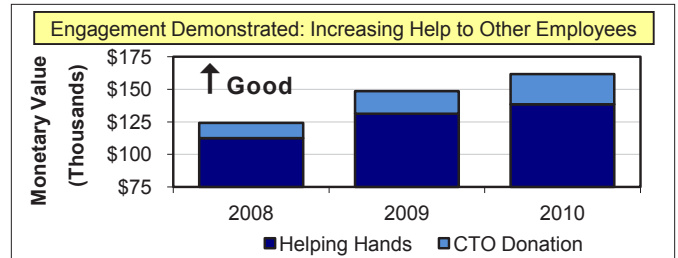
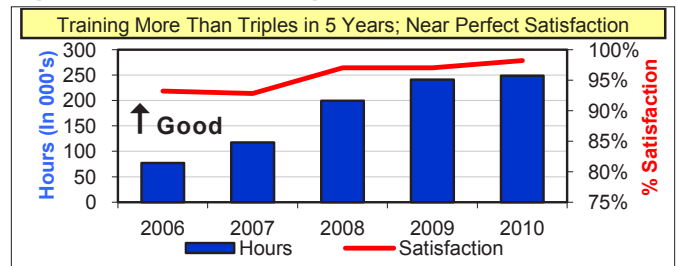
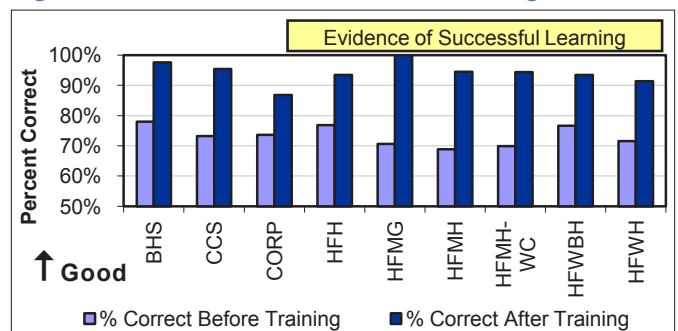


Fig. 7.3-17: HFHSU Training Hours and Satisfaction



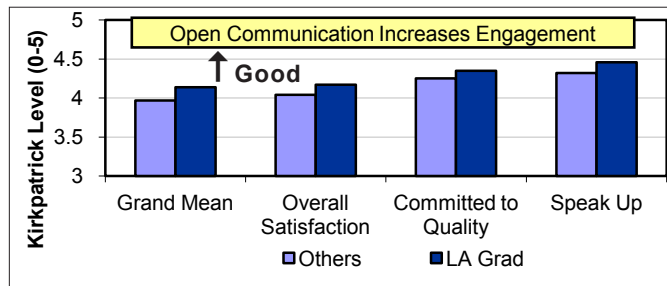
Just Culture policy and training were deployed in 2009-10 to support the No Harm campaign and fosters open communication, safety, and high performance. SL was trained first; training was refined and cascaded to leaders in Corporate Services and all BUs engaged in care delivery. Successful learning transfer was achieved in all BUs (Kirkpatrick Level 2 Result: Fig. 7.3-18).

Fig. 7.3-18: Just Culture: Pre and Post Training



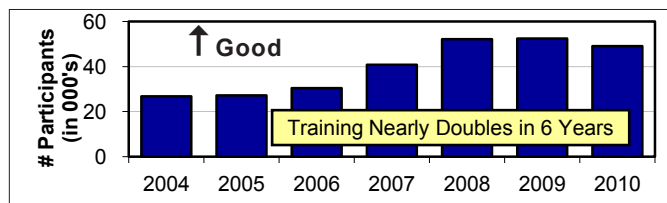
HFHSU trained more than 500 leaders in the 16-hour *Crucial Conversations* workshop; participants scored higher on Gallup engagement, satisfaction, and COS questions than untrained leaders (Kirkpatrick Level 4 Result: Fig 7.3-19).

Fig. 7.3-19: Communication Training for Leaders



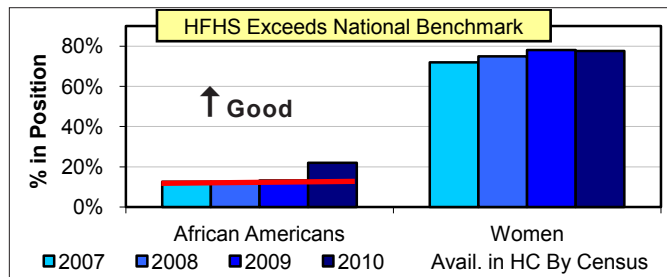
Continuing education for physicians and other clinicians includes classroom and Simulation Center courses, conferences, grand rounds, and morbidity/mortality reviews. Participants doubled from 2004 to 2010. Education and on-boarding requirements to open HFHBH increased the participants in 2008-09 compared to 2010 (Fig. 7.3-20).

Fig. 7.3-20: CME Activity



Diversity is a key component of our People strategy. HFHS ranks higher than other top U.S. companies (all industries) in the percent of leadership and professional positions held by African Americans and women (Fig. 7.3-21). Only four other companies ranked higher than HFHS in this category.

Fig. 7.3-21: Leader and Professional Position Diversity



Leader development supports career progression and bench strength. LA participants are high potentials to fill LEAP positions in 3-5 years. Our 60% five-year promotion rate demonstrates learning effectiveness and meets our internal goal to balance (~50/50) internal promotion with external recruitment (Fig. 7.3-22).

Fig. 7.3-22: Leadership Academy Graduate Promotions

LA Graduates (n = 383)	Within 1-2 Years	Within 2-5 Years
% Promoted	20%	40%

7.4 Leadership and Governance Outcomes

7.4a(1) Leadership.

Vision. SL engaged the workforce and key stakeholders in developing our new vision (1.1a(1)). SL received input from 2,662 employees and 74 trustees/private practice physicians. Of the 3 vision options presented in the voting step, 60% of each segment preferred option 2, which formed the basis for our new vision (P.1a(2)).

Health Engagement. Living our new vision requires SL to engage our workforce personally in wellness. When SL rolled out HE (1.1b(1), 5.1b(1)), we tested communications effectiveness multiple times in focus groups and surveys to ensure messages address employee questions and concerns (Fig. 7.4-1).

Fig. 7.4-1: SL Communication Results: HE

COMMUNICATION PROCESS MEASURES

- A survey of managers showed 95% of respondents believed their employees were aware of HE & 79% understood the program.
- Focus groups with more than 35 employees at four sites tested messaging regarding HE and HFHS's support of wellness. The majority felt the HE program was a good motivator to focus on one's health and understood the intentions of the program.

OUTCOME MEASURES

- For 2010, 86 percent of eligible employees and their spouses or partners took the actions necessary to qualify for HE, compared to a participation goal of 70 percent.

*Two key questions in our employment engagement survey demonstrate deployment of vision and values: Q01: I know what is expected of me at work, and Q08: The mission/purpose of my company makes me feel my work is important (Fig 7.3-10). Focus on action and two-way communication are demonstrated through deployment of a culture of safety plan and measured through the **culture of safety survey** Questions C09: Management shows by their actions that patient safety is a top priority and C10: I feel encouraged to speak up concerning patient safety (Fig 7.1-3). All show improvement, with culture of safety scores above the 75th %ile.

Our SO for the Quality & Safety pillar is to be a national leader in delivering safe, reliable, high quality, and highly coordinated care to each individual patient. Recognition serves as one indicator of our focus on action (Fig. 7.4-2).

7.4a(2) Governance & Fiscal accountability. Deloitte & Touche LLP audits HFHS's fiscal accountability and processes annually. *HFHS received **unqualified audit reports** for the past ten years with no material weaknesses. Internal Audit Department performs 200 audits annually, sharing results with BU leaders, SL, and the A&CC. Since 2004, Internal Audit has found no material weaknesses in the internal control structure. All Insurance Commission Submissions (HAP) have been accepted. There have been no material weaknesses in the OMB A-133 Research audits.

Although national best practice benchmarks are not available, HFHS performed significantly better than the Governance Institute (GI) national average for all but 2 questions on the BOT evaluation (1.2a(2), Fig. 7.4-3). The below average scores related to new trustee orientation and materials distribution, both of which were revised for 2011.

Fig. 7.4-2: Recognition for Quality & Safety

QUALITY AND SAFETY RECOGNITION: SAMPLING, 2007-2010	
HFHS	<p>2009: Thomson Top 10 U.S. Systems, Quality and Efficiency</p> <p>2008: National Safety Leadership Award, VHA Foundation and the National Business Group on Health</p> <p>2007: MI Quality Leadership (MQC/State Baldrige, highest level)</p>
HFH	<p>2011/2010: Healthgrades ED Ranking, Top 5% in the Nation</p> <p>2010: AHA/McKesson Quest for Quality Finalist</p> <p>2006-2009: NRC's Consumer Choice Award for Best Overall Quality for the Detroit/Wayne County area</p> <p>2009/2008: Thomson Top 100 Hospitals, PI Leaders</p> <p>2007-2009: Thomson Top 100, CV/Heart Care</p> <p>2008: AMA's Bronze Award for stroke care</p> <p>2008: Governor's Award for Appropriate Care, Surgical Care, ED</p> <p>2007: LeapFrog Group Top 50 Safest Hospitals</p>
HAP	<p>2009: MI AHP' Pinnacle Award for Best Practice: Chronic Disease Care, Care Management and Community Outreach.</p> <p>2008-2011: J.D. Powers, Highest Member Satisfaction</p> <p>2009: Consumer Report's Ranking of Best Health Plans (#2)</p> <p>2009: U.S. News/NCQA America's Best Health Insurance Plans</p> <p>2008: Pinnacle Award for Best Practice: Chronic Disease Care and Clinical Service Improvement</p> <p>2008: US News & World Report Ranking of Medicare Program (#1 in MI, #24 nationally)</p> <p>2007: NCQA Innovation in Multicultural Health Care</p>
COMMUNITY HOSPITALS, AMBULATORY	<p>2009: Commonwealth Fund Case Study for Excellence (BHS)</p> <p>2008: NCQA Diabetes Physician Recognition Program (HFMG)</p> <p>2007: MI AHP Pinnacle Award, Innovations in Diabetes (HFMG)</p> <p>2007: NCQA Innovation in Multicultural Health Care (HFMG)</p>
	<p>2011/2010: Healthgrades ED Ranking, Top 5% Nationally (HFMH)</p> <p>2009: Data Advantage LLC, Top100 Hospitals for Value (HFMH)</p> <p>2009: ACS Midas+Platinum Quality Award - Excellence (HFMH)</p> <p>2007/2008/2009: Thomson Top 100, CV Benchmarks (HFMH)</p> <p>2008: Leapfrog Group Top 33 Hospitals (HFMH)</p> <p>2007/2008: Gov.'s Award, App. Care, Surg. Care, ED, CPOE (HFMH)</p>
	<p>2007/2008: Gov.'s Award, App. Care, Surg. Care (HFMH-WC)</p> <p>2008: BCBS Ctr. of Exc. Award-Bariatric Surgery (HFMH-WC)</p>
	<p>2011/2010: Healthgrades ED Ranking, Top 5% Nationally (HFWH)</p> <p>2009: Press Ganey's Summit Award, ED, Ambulatory Surgery, & Outpatient Services (HFWH's Center for Health Services)</p> <p>2007/2008: Gov.'s Award for App. Care, Surg. Care, ED (HFWH)</p>

Key: AHP = Association of Health Plans; App.= Appropriate; Ctr. of Exc. = Center of Excellence; ED—Emergency Dept.; Gov's = Governor's (discontinued after 2008)

Fig. 7.4-3: BOT 2010 Evaluation

	GI NATIONAL AVERAGE	HFHS BOT	HFMH BOT	HFWH BOT
Appropriateness of Board Composition	50%	84%	82%	90%
New Trustee Orientation	83%	80%	70%	88%
Focus on Strategy vs. Operations	53%	84%	82%	86%
Devotion of 20-30% of Agenda to Quality/Safety	64%	76%	86%	98%
Timely Meeting Materials	79%	88%	76%	84%
Involvement with Identification of New Trustee Candidates	65%	80%	88%	92%
Role of Trustee Representing System in Community	70%	92%	96%	94%
Trustee Philanthropic Support	55%	88%	86%	90%

7.4a(3) Organizational accreditation, regulatory, & legal compliance. *All BUs have consistently received full accreditation for the last decade and fully meet all key **regulatory and legal requirements, achieving 100% of measures and**

targets for all processes in Fig. 1.2-1 including all BU accreditations and licenses; all legal and regulatory compliance processes; 100% of risk management trainings and drills/ethics compliance processes, such as:

KEY MEASURES – ALL BUs COMBINED	2006-2010
Joint Commission, DNV, AOA, ACGME, CAP Survey, CMS conditions of participation, CARF, NCQA, MDCH, CAHP	Full Accreditation
Staff Licensure and Safety, Medical Waste – EPA, MI-OSHA, OSHA, EEOC	100%

7.4a(4) Ethical behavior & trust. Employee trust is demonstrated in 7.4a(1) through engagement questions specifically directed at management's commitment to safety as a priority and employee willingness to speak up (Fig. 7.1-3) – both scoring above 75th %ile. *The number of **clinical research programs** underway each year is another indicator of patient trust. The IRB has approved in excess of 500 new research protocols each year for the past four years. All SL and managers must disclose all outside activities and interests with the potential for conflict. In 2010, we received 3,000 disclosures requiring the Review Panel to act on 800 responses with substantive disclosures and formulate 24 management plans (Fig. 7.4-4). The process will include private physicians and fully integrate research in 2011.

Fig. 7.4-4: External Trustee Conflict Disclosures

	2008 TOTAL	%	2009 TOTAL	%	2010 TOTAL	%
Trustees Deemed to be Independent	89	98%	90	100%	93	100%
Trustees Disclosing	89	98%	90	100%	93	100%
Trustees with Potential Conflicts*	10	11%	11	12%	8	18%
*Potential Conflicts with Effective Management Plans	10	100%	11	100%	8	100%

Over the last three years, we have very intentionally encouraged incident reports. SL's focus on ethical behavior and privacy rights (1.1a(2), 1.2b(1)) and leader/workforce development addressing ethical practices (5.2c(1)) have contributed to this effort (Fig. 7.4-5). We consider the increased reporting seen in 2010 a success. 100% of compliance incidents are investigated and addressed.

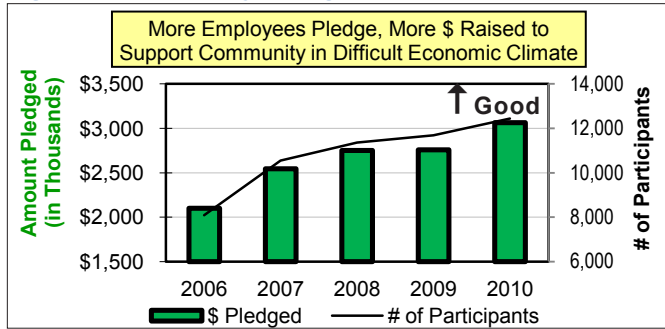
Fig. 7.4-5: Reported Incidents through Compliance Line

	2008	2009	2010
Human resources	83	53	56
Privacy	32	101	165
Compliance	15	50	136
Facility related	6	9	39
Safety	5	15	23
Total	141	228	419

*Over 3000 vendors have completed HFHS's mandatory **Vendor Compliance Policy training** (1.1a(2), 6.2a(3)). HFHS was featured in *Modern Healthcare* as an innovator in this area and shared the policy development and implementation with physicians/health systems across the country.

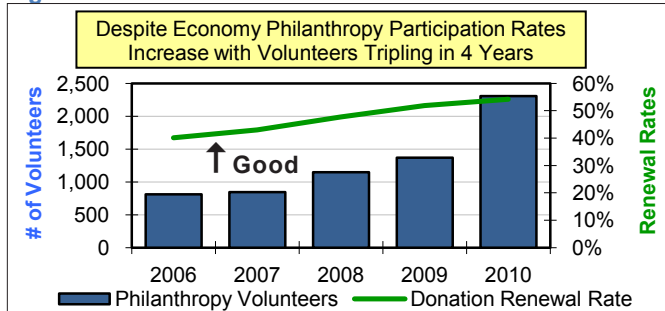
Our employees support our communities through the Community Giving Campaign. Participation and dollars raised have increased each year since 2004 (Fig. 7.4-6).

Fig. 7.4-6: Community Giving



An indicator of trust is the number of people who volunteer to raise money for HFHS and the donor renewal rate. Donation renewal rates and philanthropy volunteers have risen dramatically over the past four years (Fig. 7.4-7).

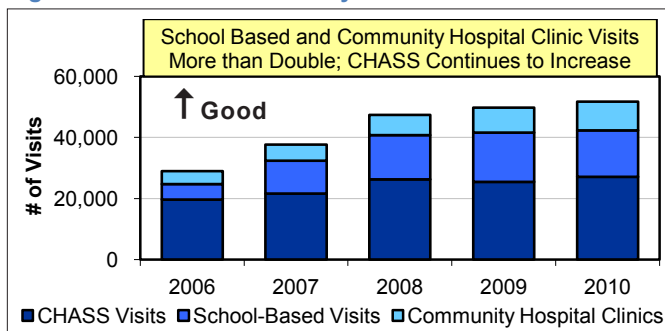
Fig. 7.4-7: Donor Trust



7.4(5) Organizational citizenship & community support.

Our Community SO is to be a national leader in community health advocacy and involvement. Our SI to increase support and utilization of community clinics (CHP) has increased the number of participants across the System (Fig 7.4-8).

Fig. 7.4-8: Visits to Community Clinics



Other programs address and prevent chronic health conditions. *More than 25,000 HAP members have collectively lost more than 235,000 pounds over two years since HAP teamed up with **Weight Watchers®** (WW) in 2007. In 2009, HAP conducted a one-year study of 9,243 WW participants. Results include:

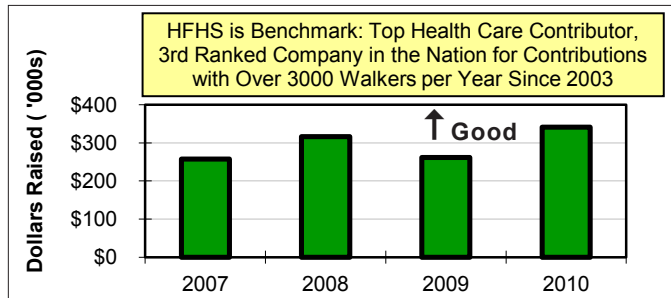
- 21% increase in controlled blood glucose (HbA1c) in people with diabetes; 13% to 27% improvement in total cholesterol among participants with 6-20% weight loss
- 5% reduction in ER visits
- 42% reduction in cardiovascular inpatient admissions
- 23% reduction in respiratory inpatient admissions
- 14% reduction in use of three or more blood pressure medications

*HFHS also recognizes that many of our patients have emergency at-home needs beyond what they can afford. Each hospital has established a **Patient Emergency Medical Needs Fund** to provide equipment and medications to patients when they are discharged from our care. This fund is principally supported by donations from our workforce. Over the past three years, more than \$1.1M has been donated to support these needs (1.2c(2)), Fig. 2.1-2, Community SI).

*HFHS actively encourages **community volunteerism** by our entire workforce and has annually established targets for leadership participation. In 2009, LEAP members accumulated over 7,480 volunteer hours. In 2010, we spread this expectation to all leaders, setting goals of 10,000 volunteer hours in 2010 and 15,000 in 2012. Actual volunteer hours in 2010 exceeded 12,000.

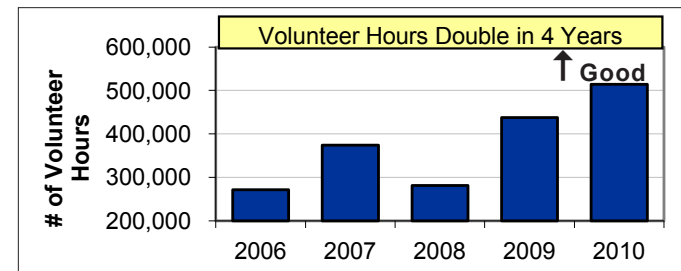
We support community health by participating in the AHA Annual Heart Walk. In 2003-10, more than 3,000 HFHS walkers participated, raising a total of \$2.1M (Fig. 7.4-9). In 2010, HFHS employees raised \$341,023, with the CEO and COO among the top ten fundraisers. HFHS is the top-ranking company in Michigan, the top ranking health care system in the nation, and the third-ranked company in the nation for donations for this AHA event.

Fig. 7.4-9: AHA Annual Heart Walk



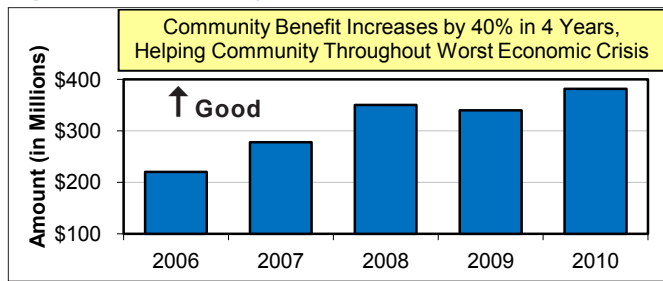
Community residents enjoy supporting their communities through volunteer service at HFHS hospitals (Fig. 7.4-10). Over the past 5 years, volunteer service hours to HFHS have increased from 271,684 in 2006 to 487,101 in 2010. This result reflects expanding our volunteer pool and improving our reporting process.

Fig. 7.4-10: Volunteer Hours



2010 community benefit initiatives totaled \$373M (Fig. 7.4-11). This includes \$199M in uncompensated care (Fig. 7.5-3), which has increased at a greater rate than all our competitors, up from \$132M in 2009. During the most recent three years, community benefit consistently represents in excess of 17% of net patient revenue, with the cost of charity care representing 2.5%.

Fig. 7.4-11: Community Benefit



HFHS is one of the largest employers in SEM and the State. We track both direct and indirect economic impact (wages, employee and vendor consumption) using standard industry methods. Fig. 7.4-12 shows the financial impact in 2010,

Fig. 7.4-12: Economic Benefit

HFHS 2010 TOTAL IMPACT	METRO DETROIT
Direct	\$4.08 billion
Indirect	\$1.74 billion
TOTAL	\$5.82 billion

*We are committed to **sustaining the environment**. In 2010 we recycled more than 2 million pounds of batteries, lamps, electronics, and chemicals. Our measured energy savings from switching to high efficiency lighting is more than \$45,000 per year.

HFHS continues to be recognized locally and nationally as a leader in Supplier Diversity (Fig. 7.4-13). The SCM Department continuously works with staff System-wide to create awareness and advocacy for supplier diversity.

Fig. 7.4-13: Supplier Diversity Leadership

HFHS BEST PLACE TO WORK AND DIVERSITY AWARDS
Corp Magazine: Diversity Focused Company, 2010
Diversity Inc.: #1 Hospital System for Diversity, 2011 & 2010; #10 Supplier Diversity in 2009; #8 in 2008
Hispanic Business Alliance: Corporation of the Year, 2009
Institute for Diversity in Health Management: Best in Class: Leadership & Governance, 2010
Intouch Communications: Calidescope of Culture-Diversity Resource Guide, 2005; Supplier Diversity 2006
Michigan Minority Business Development Council: Corporation of the Year Award Health Care Sector-Supplier Diversity, 2009 & 2005; Corporate ONE Award-Supplier Diversity, 2005-2008; Health Care Sector Appreciation Award—Supplier Diversity, 2007
Michigan Supplier Diversity Council: Health Care Corporation of the Year, 2010
Premier Inc.: Diversity Award-Supplier Diversity, 2009 & 2007

Community Leadership. As a recipient of the AHA Foster McGaw Award, HFHS is a recognized leader in community programs. Our “can-do spirit” extends beyond programming to leadership positions in numerous community organizations as Board members and volunteers.

HFHS leaders have served or currently serve in leadership roles for health care’s top national and state professional organizations, including: Presidents of the AMA, ACC, National Arab-American Medical Association, Michigan State Medical Society, American Academy of Dermatology, U.S. and Canadian Academy of Pathology, Society of Pediatric Urology, and American College of Chest Physicians; Chancellor, American College of Critical Care Medicine; Chair, American Board of Internal Medicine; and Michigan’s Surgeon General.

*We have received acclaim for our **community leadership**, including the AHA Grassroots Champion Award, the MichUHCAN Health Care Hero award, and recognitions from multiple media and ethnic organizations such as Crain’s Detroit Business Health Care Hero and B’nai B’rith Great American Traditions Award.

Finally, HFHS improves the health of not only our patients and community, but people throughout the nation and across the world. HFHS researchers engaged in more than 1,700 studies last year. Neurology pioneered restorative therapy for treatment of stroke, traumatic brain injury, and neurodegenerative diseases. Radiation oncology developed a gene therapy to increase radiation effectiveness in prostate cancer. HFHS epidemiologists established screening practices for multiple cancers to reduce racial disparities in treatment. We collaborate with IHI to document and spread HFHS innovations and best practices. HFHS research innovations save hundreds of thousands of lives and millions of dollars each year nationally. Examples are provided in Fig.7.4-14.

Fig. 7.4-14: HFHS Research Innovation Impact

SAMPLE OF INNOVATIONS WITH CLEAR LONG-TERM IMPACT
Our sepsis bundle research, developed at HFH, officially became the national standard of care in 2001 and is estimated to have saved 60,000 lives in the US this year alone .
Our "hospitalist" randomized controlled trial was the first to demonstrate that the hospitalist model, now a standard practice, reduces the cost of care without compromising quality and safety. First published in 1991, it showed a 1.7-day lower average length of stay, lower average total charges of \$1,681, and significantly lower laboratory and pharmacy charges with no difference in mortality or readmission rates. In the 20 years since, hospitalists have become a standard of care, saving tens of millions of dollars through reduced length of stay and more efficient patterns of care.
SAMPLE OF 2010 RESEARCH INNOVATIONS
Improving Medical Treatment:
<ul style="list-style-type: none"> First to successfully treat Parkinson’s disease with gene therapy <ul style="list-style-type: none"> Achieving lasting, clinically meaningful improvements in 50% of patients Stands to substantially improve the lives of 1 million Americans Extending hepatitis C treatment for liver transplant patients <ul style="list-style-type: none"> Reaching 100% five year survival rates New approach to pre-surgical preparation for colonoscopies <ul style="list-style-type: none"> Reduces by 50% required liquid media consumption Enhancing patient comfort and compliance
Population Health and Wellness:
<ul style="list-style-type: none"> Online program to encourage nutritious eating habits <ul style="list-style-type: none"> Daily fruit and vegetable intake increased by 2 servings Group wellness programs focusing on pain management <ul style="list-style-type: none"> Demonstrated reduced pain levels and stress Improvement in stress related diseases Population studies of genetics and social/economic conditions as influence factors on medical outcome <ul style="list-style-type: none"> Genetic factors in African Americans have no impact on Asthma responses to medications African Americans more likely to have recurrence of uterine cancer
Cancer Treatment and Survival
<ul style="list-style-type: none"> Study of men with cancer diagnosis who opt for “watchful waiting” <ul style="list-style-type: none"> Demonstrated significantly worse long-term survival rate than those patients that choose radiotherapy A first-ever, long-term study of patients who underwent robot-assisted surgery to remove their cancerous prostates found that nearly 87 percent of them had no recurrence of the disease after five years Study of incorporating exercise in treatment protocols for breast and prostate cancer patients <ul style="list-style-type: none"> Those who regularly exercise report measureable better quality of life and less fatigue. Study of 3,000 patients with large BMI confirmed correlation with larger tumors and impacted surrounding tissue areas <ul style="list-style-type: none"> Potential to improve surgical techniques and reduce complications

7.5 Financial and Market Outcomes

7.5a(1) Financial performance. In 2001, HFHS experienced significant operating losses, which resulted in an intense focus on right-sizing the organization. We lagged behind competitors in quality, safety and service, and were unable to make necessary investments in our infrastructure. Consistent with our “Can-do” spirit and commitment to community, we formed a bold strategy focused on People, Quality & Safety, and Service to drive our Growth, Community, and Finance. We recommitted to our base in Detroit and our academic mission. We committed to relentlessly pursue integration to deliver the best care to our patients and drive growth.

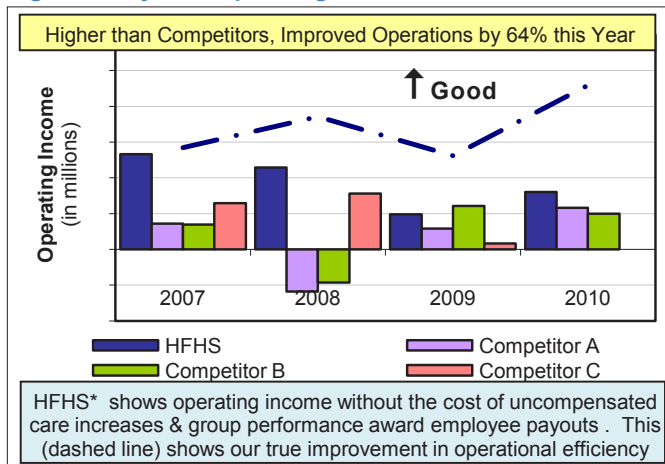
Today, HFHS is financially strong. ***Revenue** has increased each of the last 8 years and doubled in the last decade reaching \$4.08B in 2010. Our integrated System drives growth and profitability, enabling investment. In the past five years we have invested over \$1B in the System. We remained profitable throughout the economic downturn that began in 2008. We lead competitors in operating income, debt service coverage and on all fronts in market growth. During the regional economic crisis of the past three years, we have continued to invest in new infrastructure, jobs, and research and education and, at the same time, have seen larger increases in uncompensated care than most of our competitors.

***Bond Rating:** HFHS’s financial strength is reflected in our Moody’s bond rating of A1 with a stable outlook for more than five years. Our local competitors received ratings of Ba3, A1, and A2, all with negative outlook.

One of our local competitors is transitioning to for profit and comparative data are no longer available for most financial measures.

Operating Income (Fig. 7.5-1) is earning power from ongoing operations. In 2010, operating earnings improved 64% over 2009. This is notable because 2010 earnings include the cost of a 15% increase in uncompensated care and achievement of a group performance award paid out to employees. When we take out increases in uncompensated care since 2007 (Fig. 7.5-4) and performance award payouts (dotted line in 7.5-1) the true improvement in operations can be seen. This operating improvement was achieved by both increasing revenue

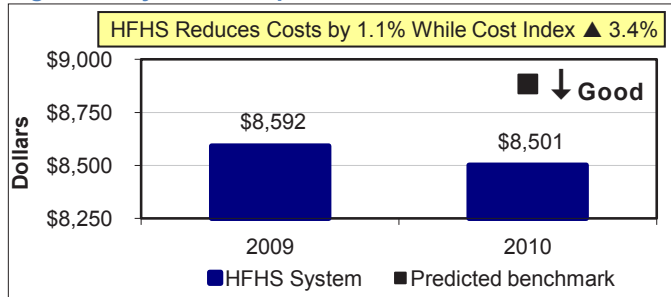
Fig. 7.5-1: System Operating Net Income



and decreasing costs. Consistent increases in CCS revenue from expanding services (Fig. 7.5-16) helped HFHS maintain operating income in 2009 and 2010 despite the economy and strategic investments. The 2009 operating decline is associated with opening a new hospital.

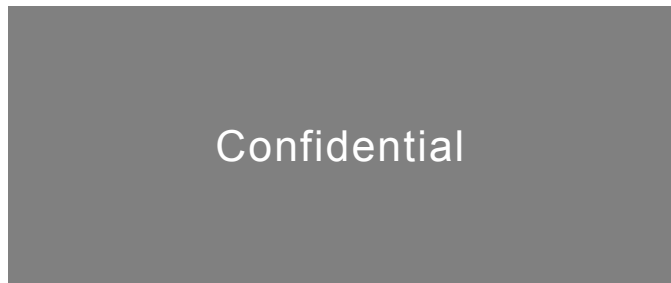
Cost Containment is essential to maintaining operating income. We leverage our integrated System to save money. System cost per unit of service, a metric developed in 2009 is a case mix adjusted calculation that includes all System costs and services (Fig. 7.5-2). While no direct comparison exists, we use the Medical Cost Index which HFHS outperformed in 2010 by 4.5%. Hospitals alone contributed \$63 of the \$91 saved. ***Cost savings from** many of our SIs contribute to this result. For example, 2010 improvements from **the No Harm Campaign** are estimated to have saved \$4.2M at HFH.

Fig. 7.5-2: System Cost per Unit of Service



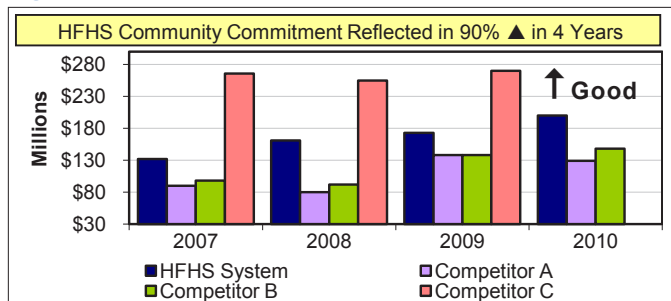
CCS effectively manages costs and productivity (Fig. 7.1-34) resulting in a competitive income margin for health products and dialysis compared to competitors (Fig. 7.5-3).

Fig. 7.5-3: CCS Income—Margin Percentage



U.S. health care providers face challenges to provide care for the uninsured. The depressed economy in our state and service area make our challenges significantly greater. Job and insurance losses in our community resulted in increased uncompensated care from 2006 to 2010 of \$95M—almost doubling our contribution (Fig. 7.5-4). Many HFHS initiatives

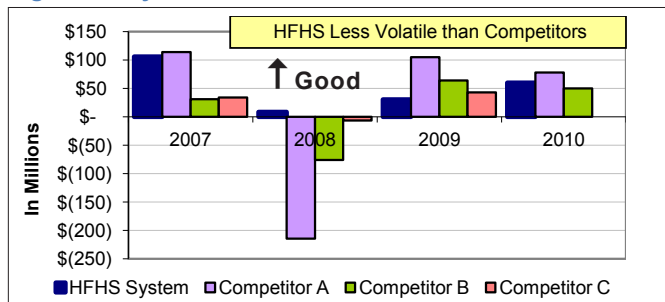
Fig. 7.5-4: Uncompensated Care



help contribute to our community, such as HAP programs for unemployed, registering eligible children for Medicaid in our School Based Programs, and ED counseling for all un- and under-insured patients. We consider it a System strength that we can provide care for our community and still remain financially strong.

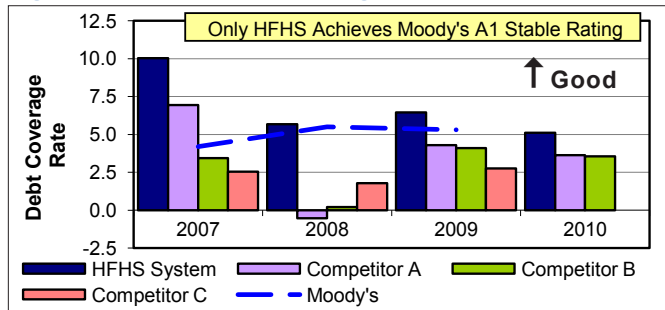
System Net Income (Fig. 7.5-5) represents net income from operations plus net income from investments and other non-operating activity. System net income declined in 2008 due to the impact of the national financial crisis (including negative returns in the equity and credit markets) and an increase in uncompensated care (Fig. 7.5-4), although our investments performed significantly better than other systems in SEM. Insurance regulations constrain HAP from owning stock, which buffers our investments during down markets but limits our potential return. *Strong **investment strategies** have resulted in endowment and pension plans performing in the upper quartile for the last 5 years.

Fig. 7.5-5: System Net Income



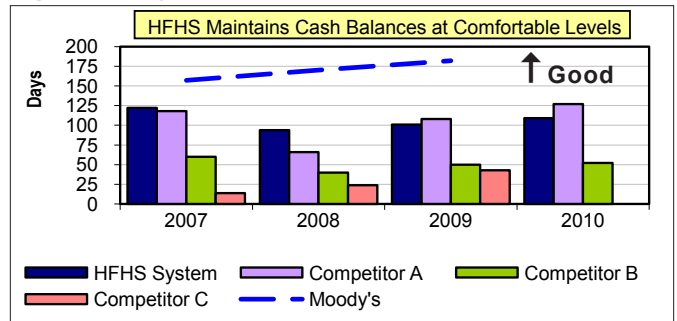
Debt service coverage (Fig. 7.5-6) measures the multiple by which current interest and principal are covered from current income. Despite significant investment and our regional economy, HFHS exceeds Moody's benchmark and all competitors. This reflects our strong balance sheet and overall financial position. The decline in 2008 represents the additional debt service associated with the bond issue to fund both HFWBH and the expansions and renovations at HFH. The 2010 dip is due to our switch to fixed rate bonds to take advantage of market conditions and increase stability.

Fig. 7.5-6: Debt Service Coverage



Our days cash on hand (Fig. 7.5-7) reflect revenue growth, improved collections, operating profitability, and capital funding. Insurance companies carry significantly less cash than hospitals. Our cash position is at comfortable levels to effectively manage capital demands and operations. While we use Moody's national benchmark as a comparison, Moody's

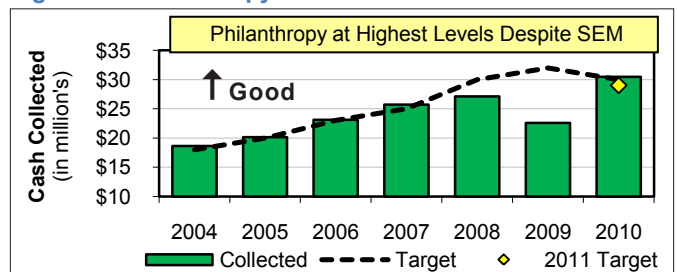
Fig. 7.5-7: Days Cash on Hand



recognizes that as an academic medical center with insurance operations in Detroit, our cash levels will be lower. All these factors are taken into consideration in our overall bond rating.

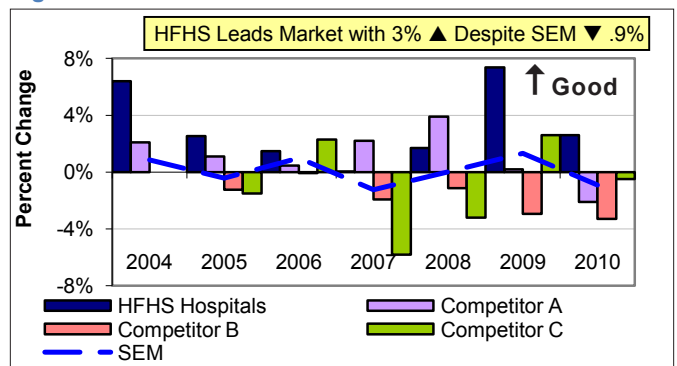
*HFHS launched a seven year **philanthropy campaign** in 2007 and, despite the economy, has succeeded in raising over \$167M, surpassing the 2010 goal of \$142.8M during the silent phase of the campaign. While cash donations were down 12% in 2009 due to the economy, they have rebounded in 2010 (Fig. 7.5-8). The number of donor renewals and philanthropy volunteers has increased every year since 2006 (Fig. 7.4-7).

Fig. 7.5-8: Philanthropy: Cash Donations



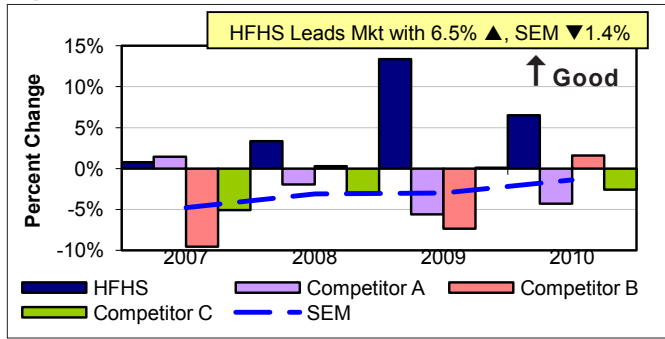
7.5a(2) Marketplace performance. HFHS exceeds all competitors in admission growth (Fig 7.5-9), increasing on average 3.0% per year since 2004 vs. SEM's increase of 0.3%. In 2010, HFHS outpaced all competitors, increasing admissions by 2.6% while SEM lost .9%.

Fig. 7.5-9: Admission Growth



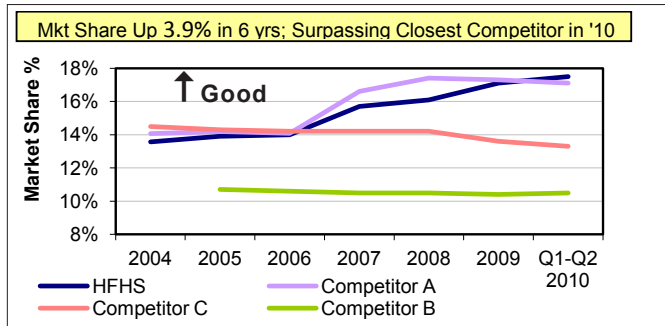
Despite a 1.4% decline in the number of births in SEM in 2010, HFHS has increased births by 6.5% and market share by 0.4% (Fig 7.5-10). In the past 2 years, HFHS has increased births by 20% while competitors declined. This is attributed to a successful growth strategy and includes 1,500 births at HFWBH.

Fig. 7.5-10: Birth Growth



Market share is defined by percent of admissions (Fig. 7.5-11). With steady growth since 2004, HFHS now has 17.6% IP Tri-County market share (and 15.0% for SEM). In 2010, we surpassed our closest competitor, which has Tri-County market share of 17.1%.

Fig. 7.5-11: IP Market Share



ED Visits and Urgent Care Visits (Figs. 7.5-12, 13). ED visits occur at five hospitals and four ambulatory medical centers. A majority of hospital admissions occur through hospital EDs reflecting the acuity of patients seen there. The hospital visits are listed with competitors for their area. Ambulatory competitor information is just becoming available (AOS). ED visits have increased in both the ambulatory and hospital settings. HFHS has expanded its urgent care sites to direct patients to appropriate care settings which has resulted in increased visits.

Fig. 7.5-12: ED Medical Centers Visits & Urgent Care Visits

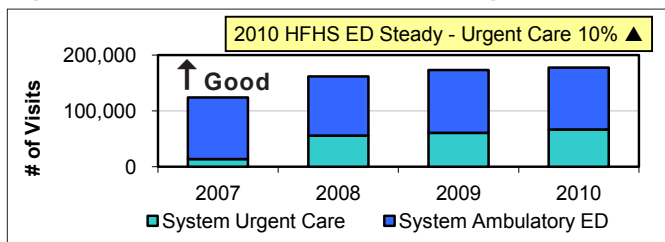
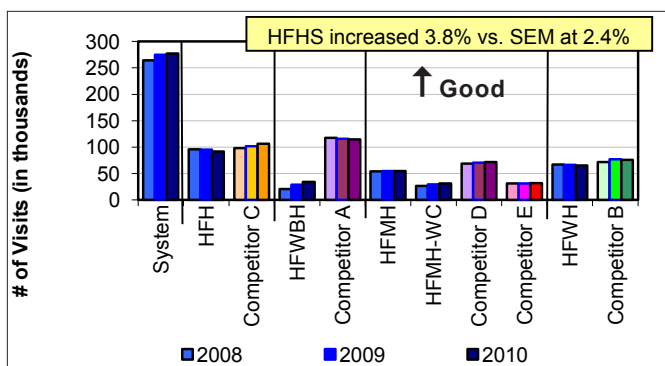
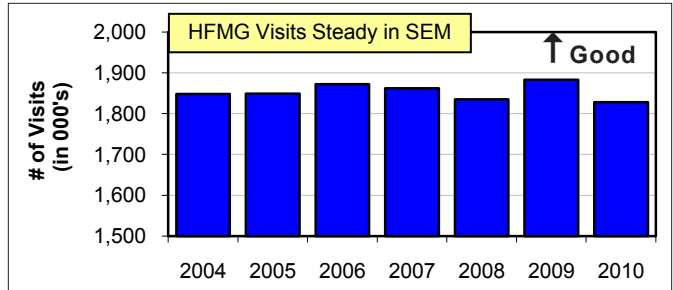


Fig. 7.5-13: ED Visits by Hospital



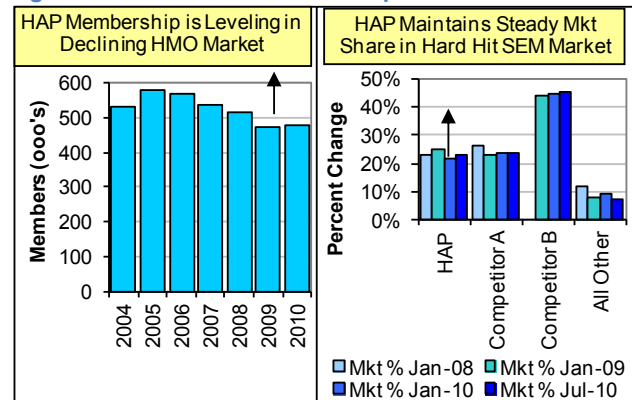
OP visits remain steady despite shrinking population. Many action plans underway to increase visits, including expansion of HFMG ambulatory centers in high growth markets and active recruitment of physicians.

Fig. 7.5-14: HFMG Outpatient Visits



Preliminary market data available in mid 2010 shows that HAP is maintaining market share at 23.4% (Fig. 7.5-15). This is a remarkable accomplishment because HAP only services SEM, harder hit economically than the rest of the state, versus the statewide service of the competition. HAP is developing new growth initiatives including new insurance products, better matched to today's needs. In addition, successful integration with CCS has resulted in reduced HAP admissions (Fig. 7.1-9) and significant cost savings (7.1b(1)*) for our sickest and most expensive patients.

Fig. 7.5-15: HAP HMO Membership and Market Share



CCS, a significant component of HFHS's business, has expanded services in Pharmacy through home delivery initiatives, added Dialysis centers and, in the last two years, expanded HHC into the Macomb county region (Fig. 7.5-16). Increased coordination among hospitals, HAP, and CCS has also contributed significantly to CCS's growth (7.1a*).

Fig. 7.5-16: CCS Service Volumes

