COMMONWEALTH OF MASSACHUSETTS

HEALTH POLICY COMMISSION

Community Health Care Investment and Consumer Involvement Committee

June 3, 2015

Agenda

- **Approval of Minutes from the April 15, 2015 Meeting (VOTE)**
- Presentation on CHART Phase 1 Report
- Update on CHART Phase 2 Implementation Planning
- Discussion of CHART Provider Engagement Plan
- Presentation on the Impacts of Health Care Reform on Massachusetts Safety Net Hospitals
- Schedule of Next Committee Meeting

Vote: Approving Minutes

Motion: That the Community Health Care Investment and Consumer Involvement Committee hereby approves the minutes of the Committee meeting held on April 15, 2015 as presented.

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CHART Phase 1: $9.2M

2,334
Hospital employees trained

400+
Hours of direct technical assistance to awardees

27 HOSPITALS | **260** UNITS
Primed for transformation

90%
of respondents believed that CHART Phase 1 moved their organization along the path to system transformation

316
Community partnerships formed or enhanced by awardees

167,000+
Patients impacted by Phase 1 initiatives

PHASE ONE

CHART Phase 1 Report

Key Report Sections

1. Introduction to the CHART Investment Program
   - CHART Overview
   - Topline Impacts
2. CHART Program Goals and Theory of Change
3. HPC Investment Approach: Building a Foundation for Transformation
4. The CHART Hospital Engagement Model
   - High intensity partnership
5. Overview of Investment Priorities
   - Reducing Readmissions
   - Reducing Unnecessary Emergency Department Use
   - Enhancing Behavioral Health Care
   - Building Technology Foundations
6. Key Lessons Learned from Phase 1 Initiatives
7. Moving Into Phase 2: Applying Lessons to Enhance CHART

Overview of Phase 1 investments, impacts, lessons & implications

CHART Phase 1 investments primed 27 hospitals for system transformation

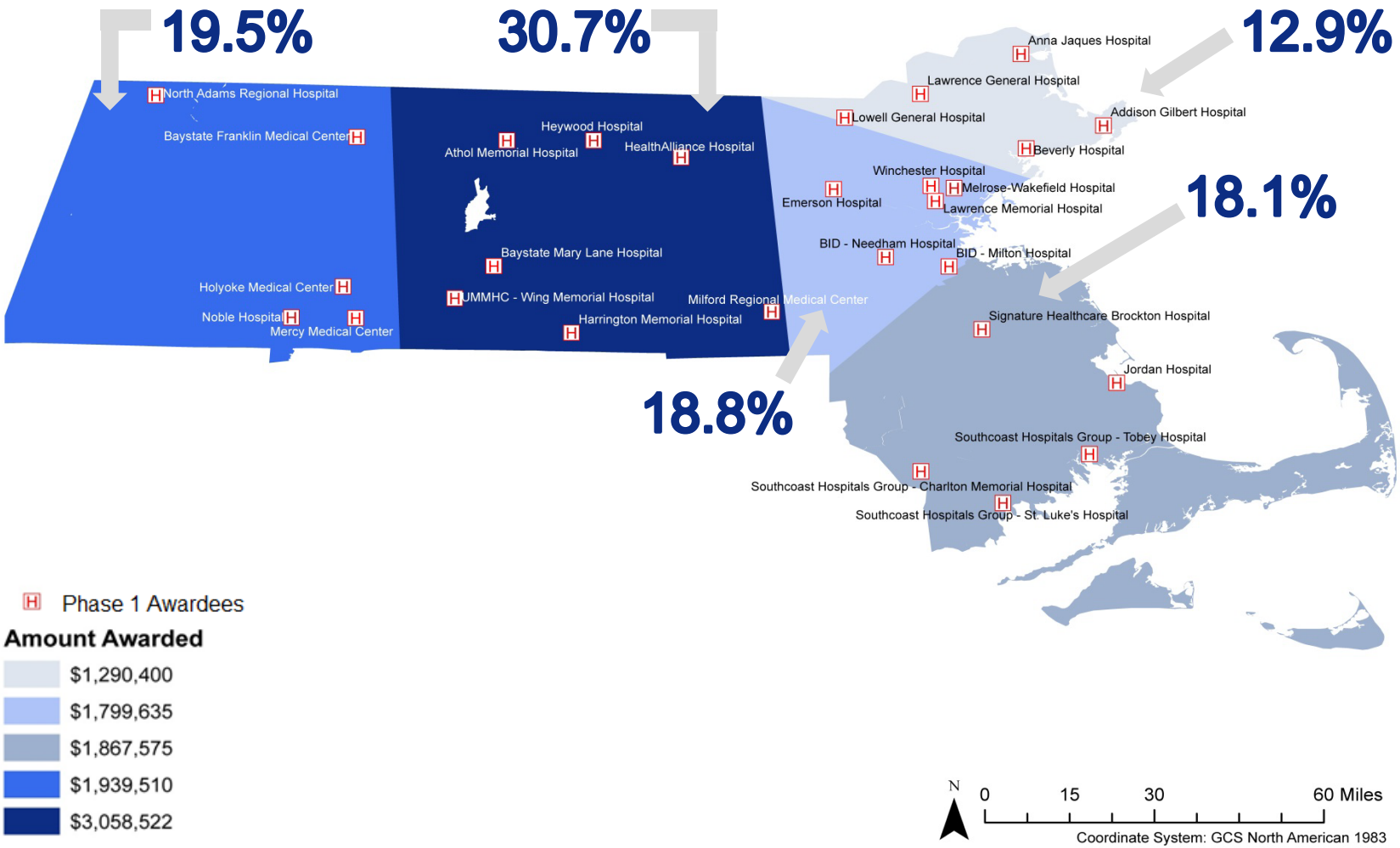
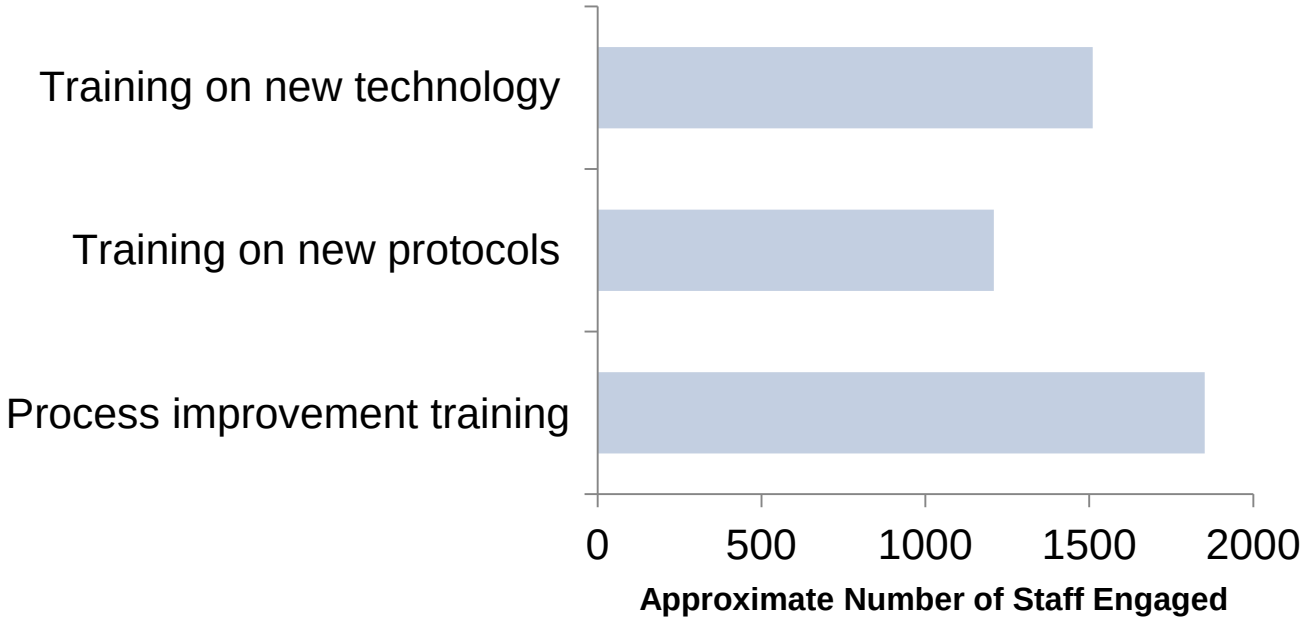


CHART Phase 1 investments trained over 2,300 hospital employees

CHART hospitals promoted staff development through trainings with a variety of areas of focus

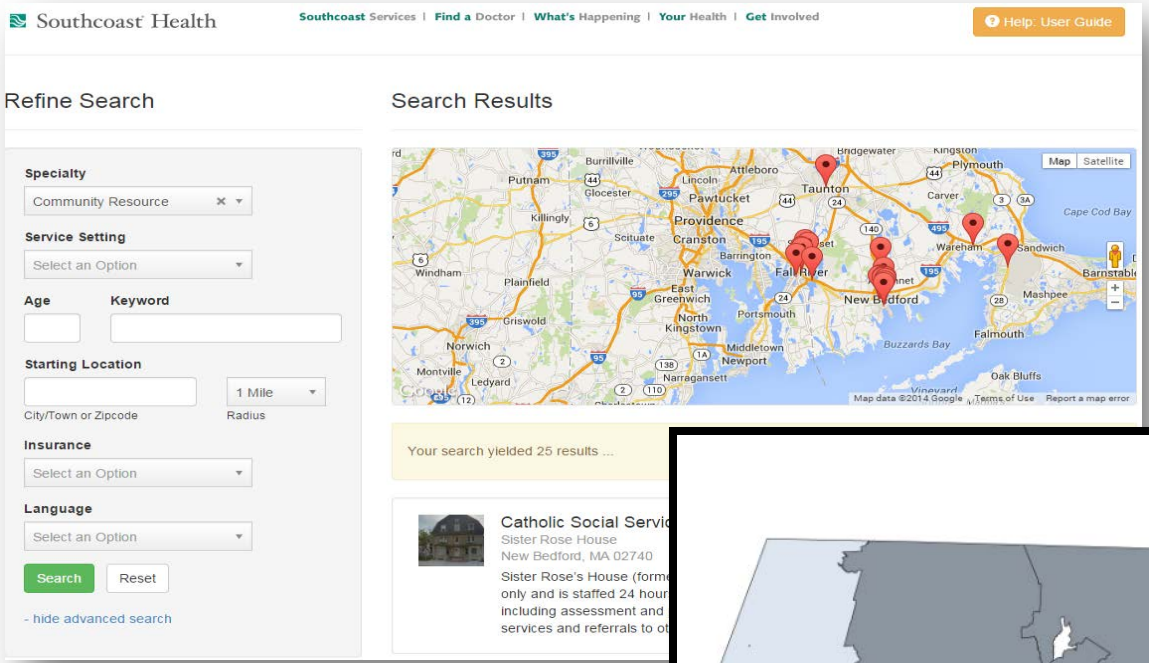


153 ED staff across the Hallmark hospitals adopted a new care protocol for back pain management to reduce opioid prescribing by 26% at Melrose-Wakefield and 43% at Lawrence Memorial, and increase PMP use from 1.5% to 60%

Mercy Medical Center trained 70 staff and executed more than 70 Lean improvement projects in five departments including team communication for care transitions and inpatient delay reduction

*Individual staff training numbers were reported by each hospital to the HPC in Phase 1 Final Reports.

CHART hospitals formed or enhanced more than 315 partnerships with medical practices, behavioral health providers, and community resources



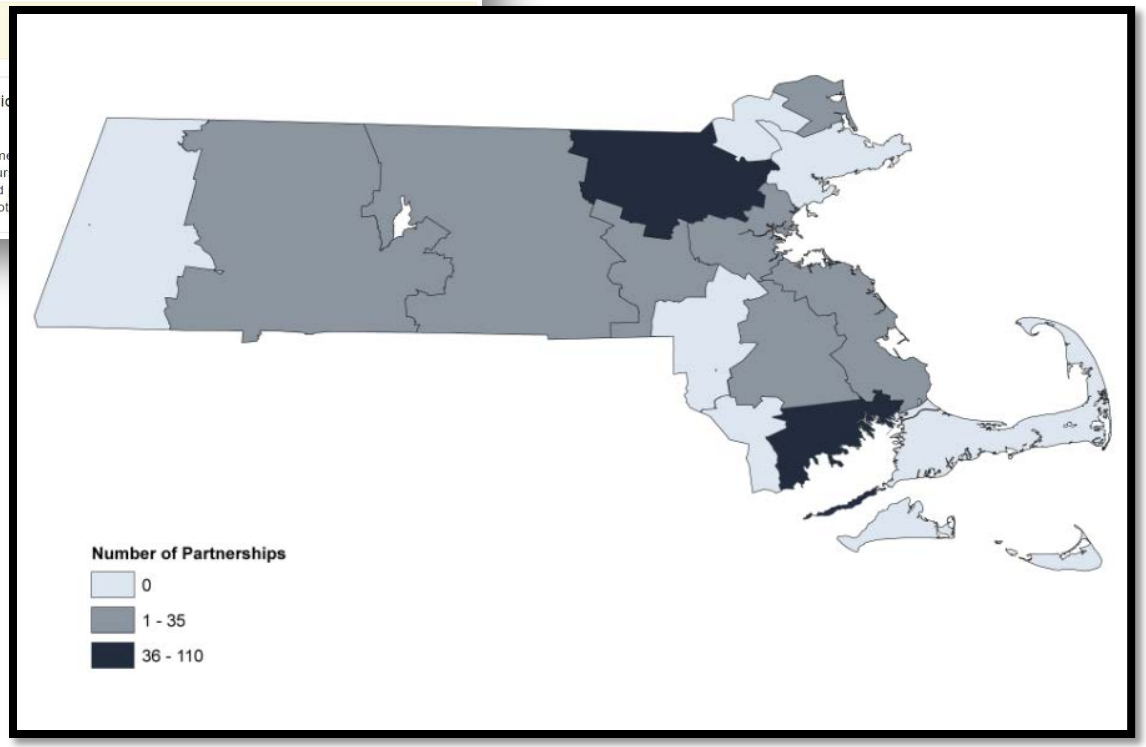
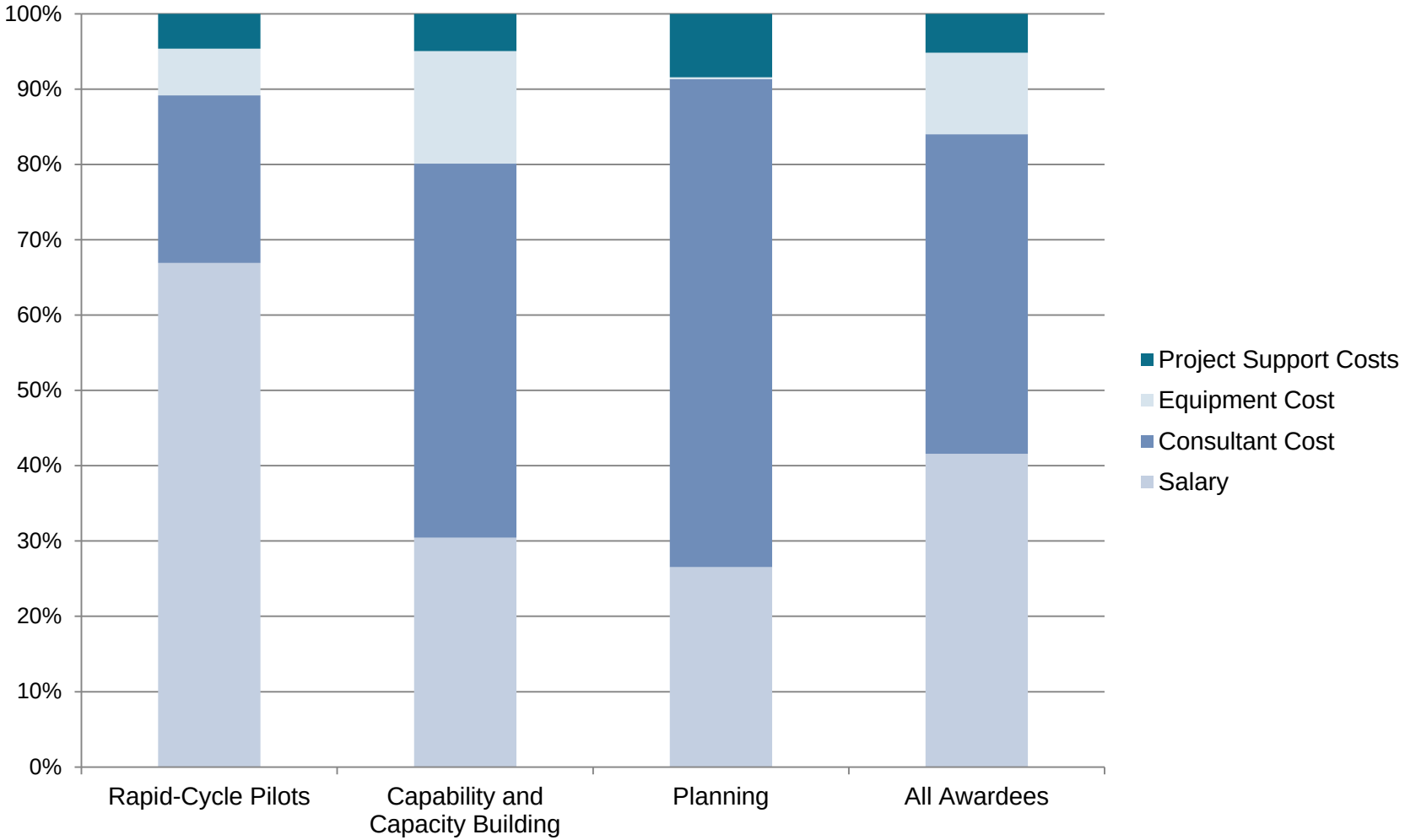


CHART Program delivered 450 hours of direct technical assistance

Monthly Calls	CHART program staff conducted calls with all hospitals for project updates, technical assistance, and setting expectations
Site Visits	CHART program staff conducted site visits at all awardee hospitals
Safe and Reliable	Safe and Reliable visited each hospital to assess the culture of the hospital and helped hospitals increase response rates to culture surveys
Learning Session	All CHART hospitals were invited to a learning session about reducing avoidable hospital utilization
Leadership Summit	CHART hospital leadership gathered to view new HPC analyses on hospital performance and discuss the imperative for transformation
Mass HIway and MeHI	MeHI offered TA on the monthly calls for 6 hospitals doing large technical projects

Ninety-two percent of Phase 1 Feedback survey respondents believed that CHART Phase 1 moved their organization along the path to system transformation

CHART Phase 1 spending by pathway and category



Note: Dollars spent by CHART do not reflect in-kind funding for initiatives from CHART hospitals; excludes North Adams Regional Hospital

Investment priorities – reducing readmissions

Significance

In FY15, CMS will penalize 55 MA hospitals for higher-than-expected readmission rates

The HPC estimates wasteful spending on readmissions at about $700 million annually

Additional Highlighted Hospitals

Beth Israel Deaconess - Plymouth
Beverly Hospital
Lawrence General Hospital
Milford Regional Medical Center
Southcoast - Charlton Memorial Hospital
Southcoast - Tobey Hospital
Winchester Hospital

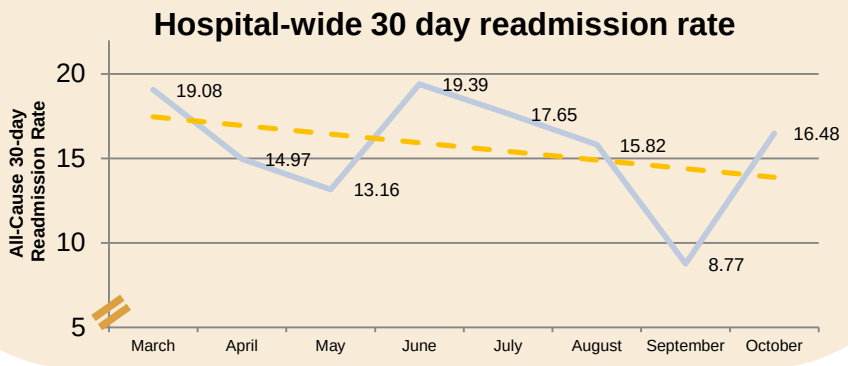
Spotlight – Addison Gilbert Hospital

Received $294,000 CHART Phase 1 Grant

Utilized funding to test implementation of a High Risk Intervention Team (HRIT)

HRIT provided patient education, medication management, and discharge planning to complex patients; reduced readmissions by

Addison Gilbert worked heavily with community partners such as The Healthy Gloucester Collaborative



Investment priorities – reducing unnecessary ED utilization

Significance

MA ranks 20th in the U.S. for highest rate of ED visits per 1,000 residents

The HPC found that almost half of ED visits in 2012 were avoidable

Additional Highlighted Hospitals

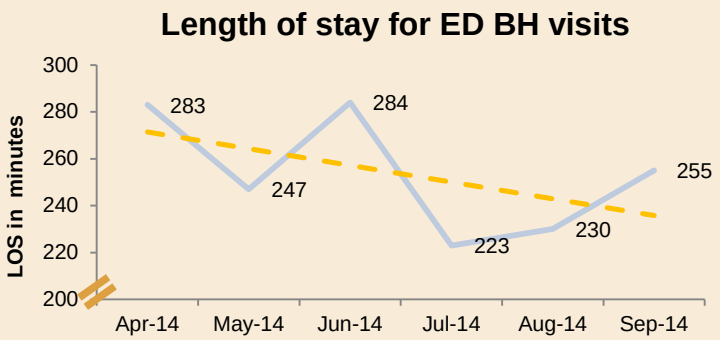
Athol Memorial Hospital
Beth Israel Deaconess - Needham
Heywood Hospital

Spotlight – HealthAlliance Hospital

Utilized CHART Phase 1 funds to develop a six-month ED Navigator Care Coordination Model for patients with serious mental illness to reduce ED length of stay with promising early indications

Intervention aimed at connecting all patients with a BH condition to a PCP, as well as increasing community collaboration for cross-continuum care

Partnered heavily with community organizations, such as local public schools and providers



Investment priorities – enhancing behavioral health care

Significance

Nearly 428,000 adults in MA struggle with a behavioral health condition

The number of opioid deaths increased 90% from 2000 to an average of 10.1 deaths per 100,000 residents in 2012

Additional Highlighted Hospitals

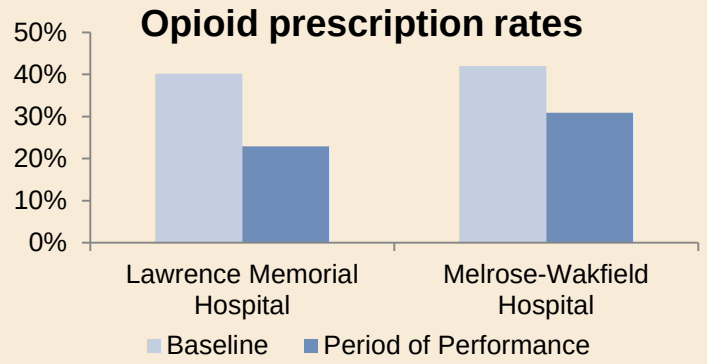
Athol Memorial Hospital
Heywood Hospital
Southcoast - St. Luke's Hospital

Spotlight – Hallmark Health System

Developed standardized clinical-practice guidelines for patients with lower back pain in EDs at member hospitals (Lawrence Memorial and Melrose-Wakefield)

Based guidelines upon extensive review of 1,100 patient medical records. Guidelines required providers to document reasons for imaging and opioid prescription

Created weekly provider and program dashboard to measure adherence to guidelines



Investment priorities – building technology foundations

Significance

Health information technology (HIT) initiatives are a means to collect, share, and analyze patient data to achieve high-quality, low-cost outcomes

89% of MA physicians and acute-care hospitals in MA utilize HIT, ranking the state among the highest in the nation

Hospitals to Highlight

Anna Jaques Hospital
Baystate Franklin Medical Center
Holyoke Medical Center
Lowell General Hospital
Noble Hospital
Signature Healthcare Brockton Hospital

Spotlight – Baystate Mary Lane Hospital

Developed telemedicine programs in outpatient neurology, inpatient speech, inpatient and outpatient cardiology, and outpatient BH to increase patient access to specialty providers

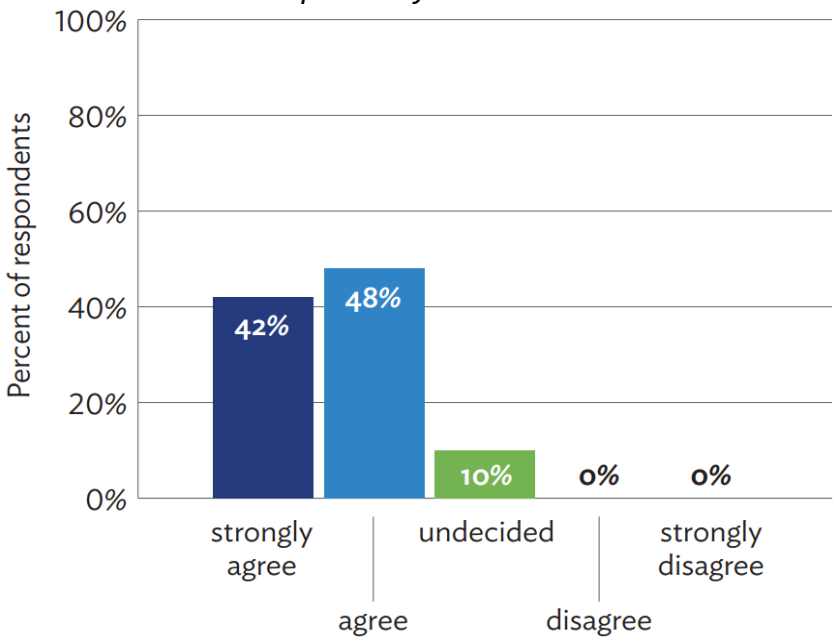
Reduced overall patient waiting time for appointments to less than 20 days, versus over 80 days on average for in-person appointment

The wait time for the third next available appointment at BML went from 90 – 113 days for an in-person consult for neurology to 5 – 9 days for a telemedicine consult.

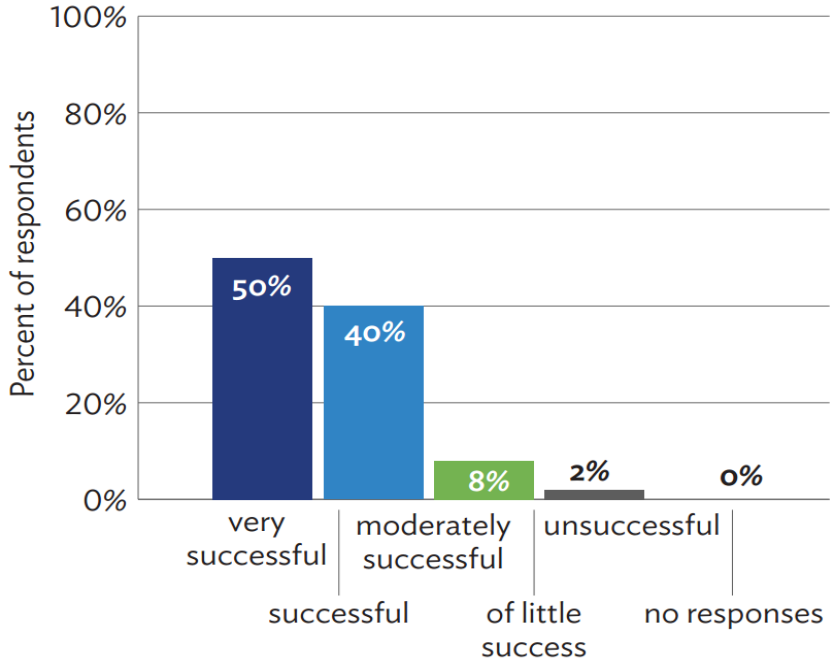
CHART Phase 1 provided value to awardees, and hospitals self-evaluated as being generally successful

Anonymous end of phase survey provided key insights into CHART's benefits and their own perspective of performance

Hospital respondents self-reported their belief that CHART Phase 1 moved their organization along the path to system transformation



Hospital respondents self-rated their performance on Phase 1 initiatives

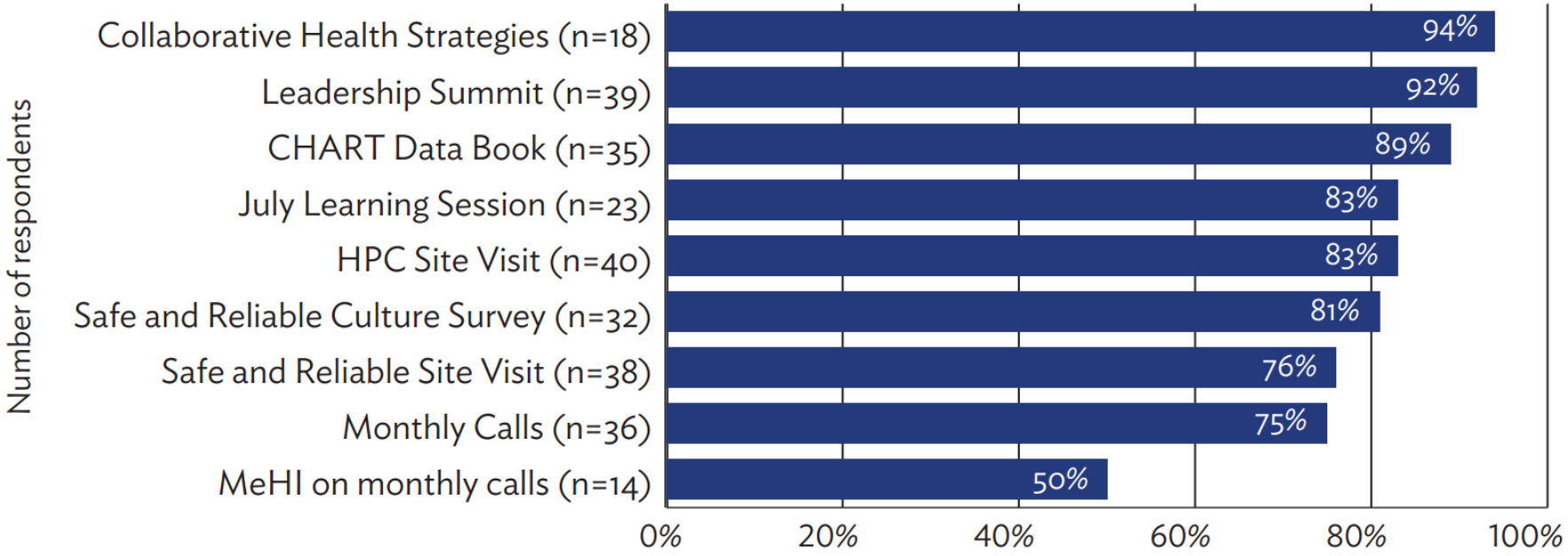


Directly informed Phase 2

CHART Phase 1 provided value to awardees

Hospitals generally found TA to be valuable, with variation between provider engagement activities

Percent of hospital respondents who found TA types valuable:



Directly informed Phase 2

Key lessons learned from Phase 1 initiatives

Key Lessons

1. The composition of transformation teams is important
2. Process improvement is key to improving overall efficiency
3. Leadership and management must engage throughout the lifecycle of initiatives
4. Technology can lay the foundation for transformation
5. Data analysis is essential to measure performance and drive improvement
6. Community partnerships are challenging to build, but are essential to success in value-based health care
7. Sustaining low-cost options for acute care is critical for maintaining a value-based system

Directly informed Phase 2

Implications for Phase 2

Focus funding and attention on key priorities

Continue to provide enhanced technical assistance

Require and facilitate data collection, measurement, and overall hospital reporting

Engage deeply in program design

Support cross-functional composition of transformation teams

Implementation Planning

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CHART Phase 2 Implementation Planning by the numbers*

5 Regional Convenings

27 Site visits

25+

Expert advisor and HPC staff intensive working meetings with hospitals

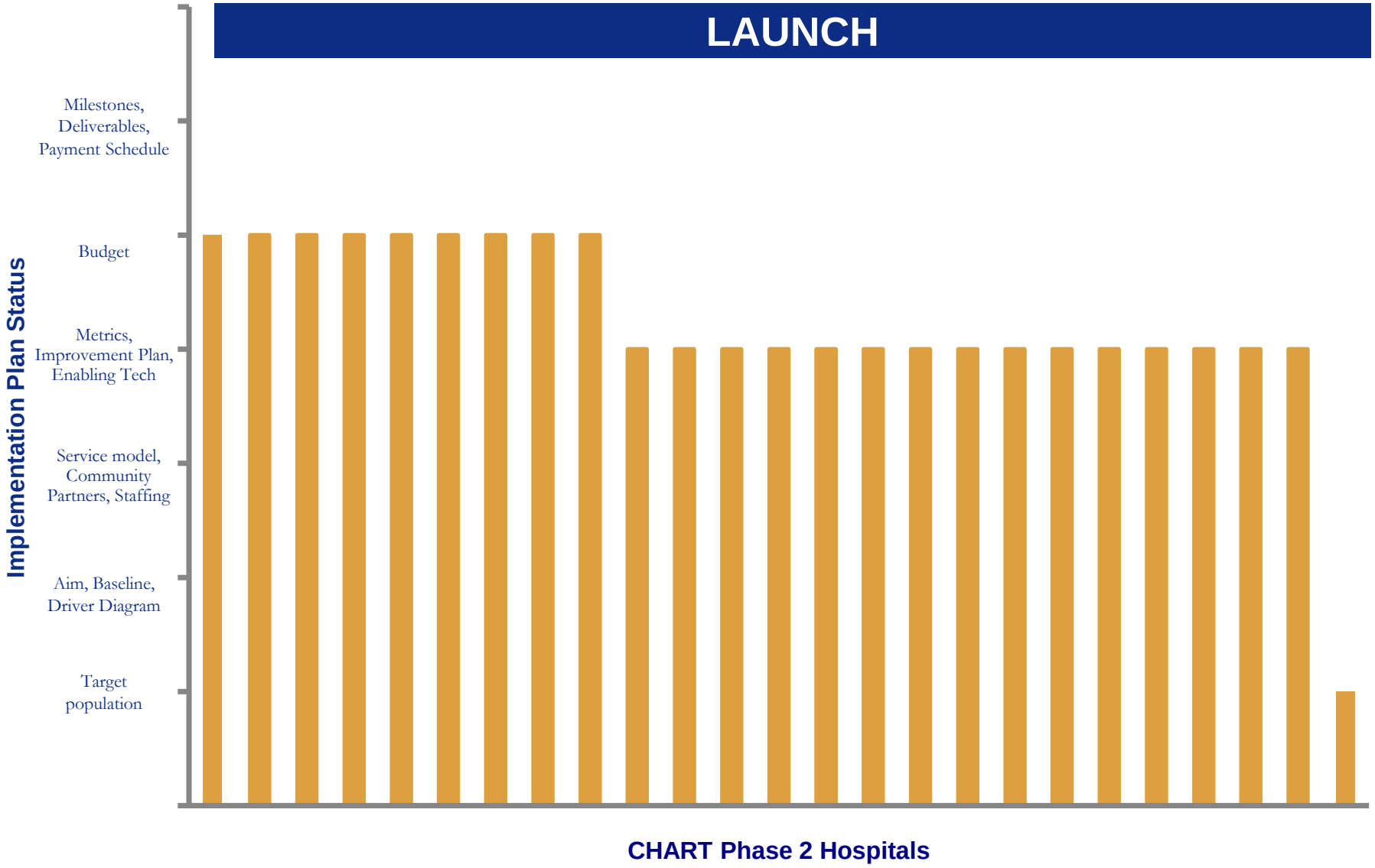
550+

Hours of coaching calls

and counting

*Updated June 2, 2015

Implementation Plan Status Update by Hospital



Fragmented Service Delivery for Complex Needs

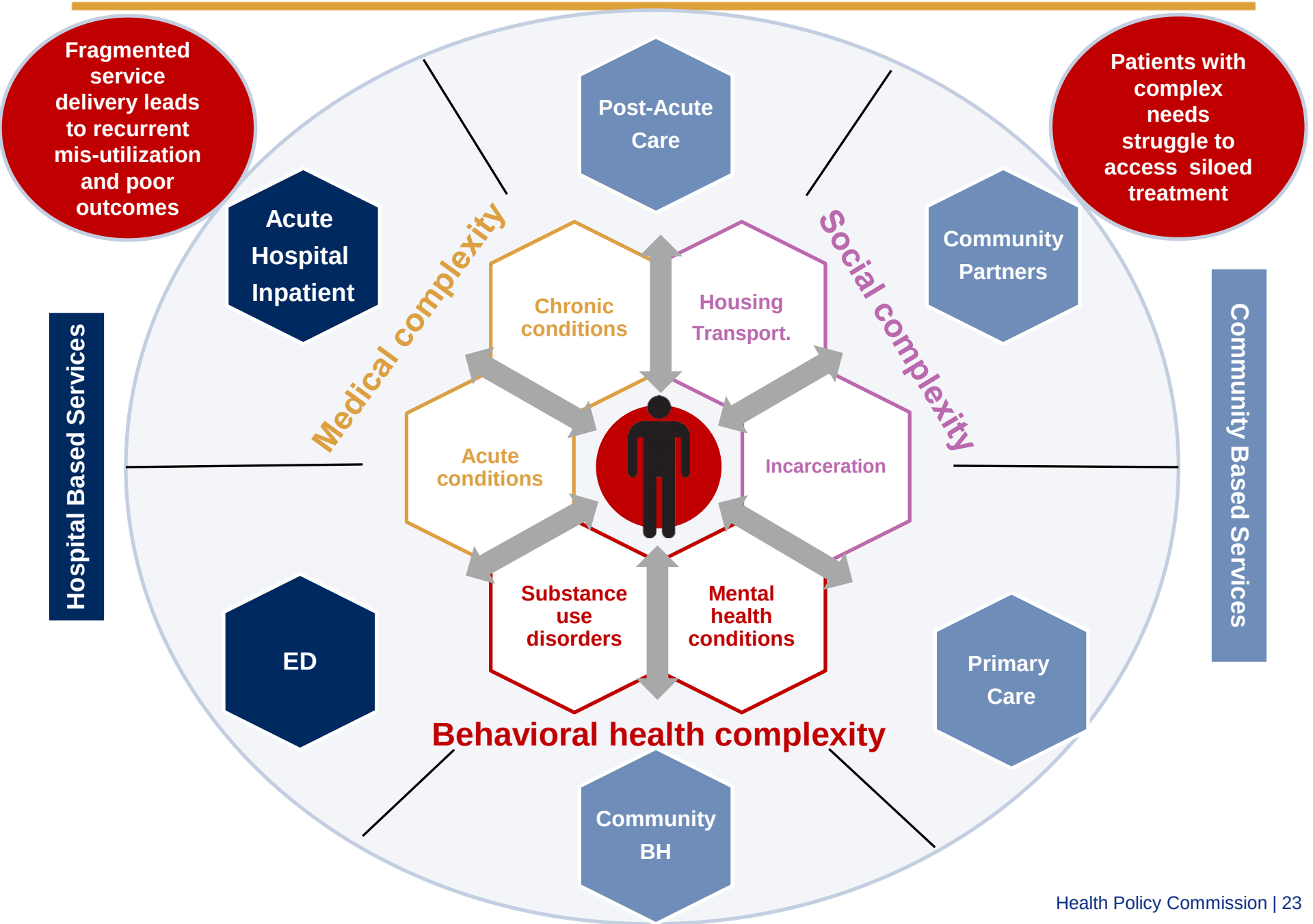


CHART Care Teams: Coordinated patient care with high intensity services that leverage innovative technology

CHART funding & capacity-building promote integrated BH care that is:

- **Patient-centered**
- **Coordinated**
- **Efficient**

Hospital Based Services

Community Based Services

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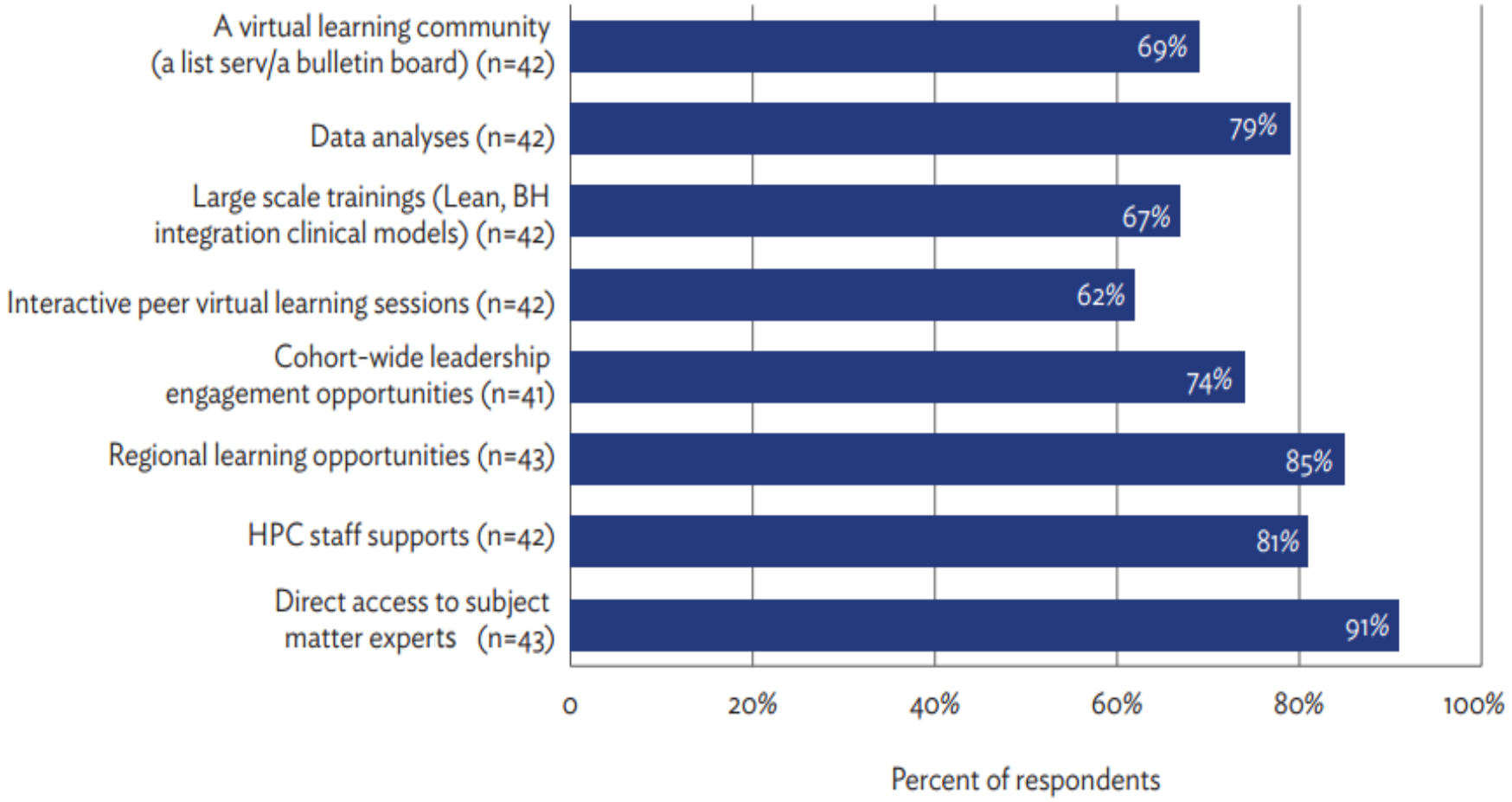
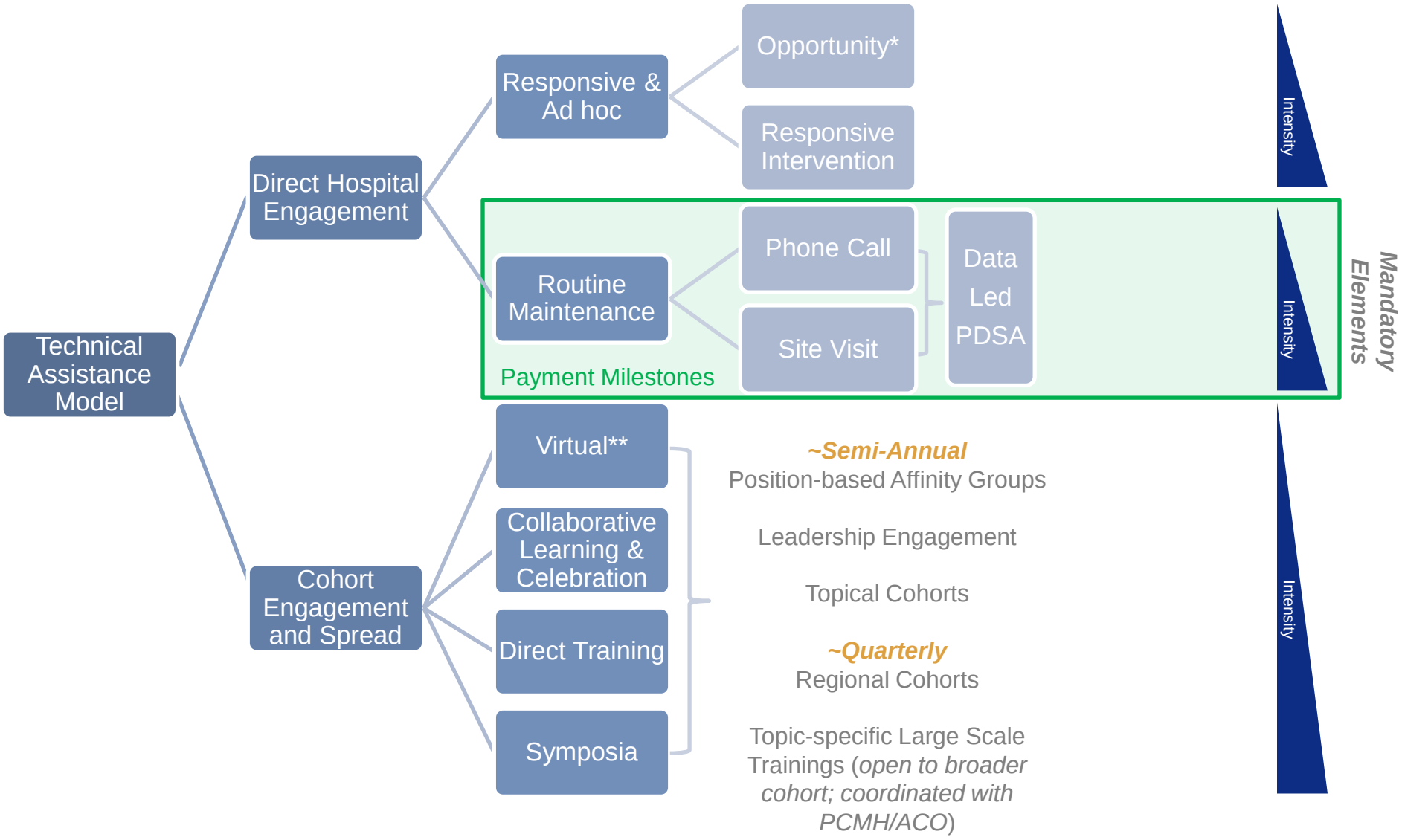
Provider engagement and support

Percent of respondents who agreed or strongly agreed that it would be helpful for the HPC to facilitate:



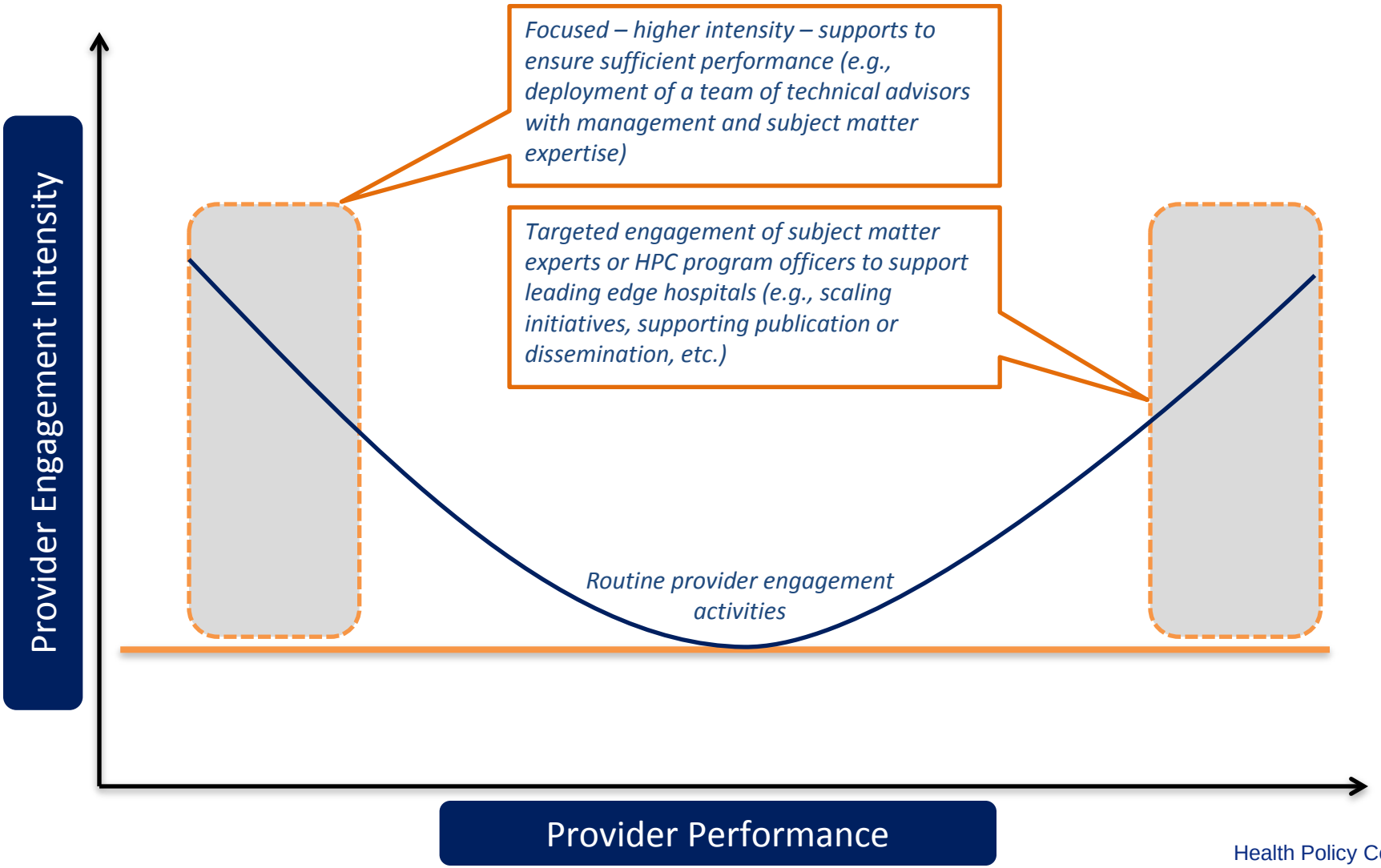
Modes for technical assistance and provider engagement



* Opportunities e.g., publication opportunities, pivot points for significant adaptation or enhancement, evolution of the scope and scale of interventions

** Virtual: **Passive** (content delivered to hospitals) or **Active** (facilitated)

Provider engagement intensity will be stratified across the cohort based upon opportunity for maximal benefit from engagement



Technical assistance approaches

State-wide meetings	Regional convenings	Site visits	Training opportunities	Calls with staff and TA experts	Leadership engagement

HPC will hold two statewide meetings in CHART 2

- *Fall 2015 Launch Meeting:* Initial meeting focusing on content and peer sharing will kick-off the performance phase of the program
- *Spring 2016 Interim Meeting* (open to public): Interim statewide meeting will be held focused on highlighting success, challenges, and best practices on individual, hospital-specific, and regional levels.

State-wide meetings	Regional convenings	Site visits	Training opportunities	Calls with staff and TA experts	Leadership engagement

Regional convenings will be a cornerstone of peer learning

- Peer-peer learning; discussion of local success and operational factors associated with effective implementation
- Discussion of local partnerships and community-based organization engagement
- Linkage with models and programs tied to CHART initiatives that are effective elsewhere
- Some regional meetings will be segmented into affinity groups (e.g., clinical leadership, operational leadership, frontline staff, community partners, etc.)

Technical assistance approaches

State-wide meetings | Regional convenings | **Site visits** | Training opportunities | Calls with staff and TA experts | Leadership engagement

Site visits will be a key opportunity for executive engagement

- At a minimum, staff will conduct site visits at each Phase 2 CHART hospital biannually. Visits will generally include:
  - A meeting with the executive team to review progress and overall project implementation (data dashboard review).
  - Discussions with implementation teams on tests of change, implementation barriers, appropriate adaptation and overall project progress.

CHART hospitals with insufficient progress will likely require additional site visits and other touch points. Higher performing hospitals may also have increased touch points to harvest successful practices, stimulate activity at other hospitals and to build momentum in the entire group.

State-wide meetings | Regional convenings | Site visits | **Training opportunities** | Calls with staff and TA experts | Leadership engagement

Trainings will bolster skills of front-line staff, managers, and leadership

- HPC anticipates hosting 2-3 trainings annually. All trainings will be in-person but will be recorded and made available on the CHART program website. Trainings available to CHART hospitals and PCMH or ACO certified entities / those pursuing certification.
- HPC will seek to partner with other organizations in the market

Technical assistance approaches

State-wide meetings	Regional convenings	Site visits	Training opportunities	**Calls with staff and TA experts**	Leadership engagement

HPC will continue frequent virtual contact with multiple purposes

- *Performance Management Calls:* Approximately monthly performance management calls led by Program Officer(s) to review activities and progress and discuss methods to overcome barriers. Semi-structured to review operational data, payment and other reporting issues
- *Coaching Calls*: Approximately monthly expert coaching calls with Program Officer(s) and Senior Advisors (content experts) to review activities and progress and discuss methods to overcome barriers.

State-wide meetings	Regional convenings	Site visits	Training opportunities	Calls with staff and TA experts	**Leadership engagement**

HPC will seek opportunities to engage current and emerging leaders

- *Current leadership* engagement activities would focus on the C-Suite and assumes more interaction and dialogue among the leaders (with networking for the CEOs, CMOs, CNOs, CFOs, and COOs). These activities would create an environment where current senior leaders engage more deeply on healthcare transformation as it applies to CHART
- *Emerging leader* activities to take mid-level, business line and other thought leaders and provides a structured curriculum that heavily links to the CHART project activities at each organization. Focused on building leadership capability and to sustain momentum after the current investments expire.

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Evaluating the Impact of Chapter 58 on Safety Net and Community Hospitals

AMY LISCHKO, DSC
KEN CHUI, PHD

Tufts University School of Medicine

Organization

- Background
- Literature
- Gaps to fill and Research questions
- Methodology
- Results
- Questions/discussion

Background

- Chapter 58 included redirection of safety net dollars from institutions to subsidies for low-income residents
- Initially the gains in insurance coverage were in both commercial and public insurance with significant drops in uninsured rates from 9.8 percent in 2004 to 3.4 percent in 2011
- Since 2008 recession, commercial gains in coverage have yielded to enrollment in Massachusetts public programs which have have grown significantly to 1,615,638 people in December 2014
- Shifts in coverage since reform could have implications for hospitals both because people now have insurance and therefore more choice and because public payers pay less for care than commercial payers

Literature

- Bazzoli, G and Clement J The experience of Massachusetts hospitals as statewide health insurance reform was implemented, *Journal of Health Care for the Poor and Underserved*, 2014
  - Studied 2004-2010
  - Major safety net hospitals had some initial easing of burden but financial status weakened through 2010
- Mohan, A, Grant J, Batalden M, McCormick D., The health of safety net hospitals following Massachusetts health care reform: changes in volume, revenue, costs and operating margins from 2006-2009. *International Journal of Health Services*, 2013
  - Studied pre (2006) and post (2009) reform
  - Assessed changes in mean inpatient and outpatient volume, revenue and operating margins at SNH compared to NSNH, found safety net hospitals performance declined post reform
- Ku, L, Jones E, Shin P, Byrne FR, Long SK, Safety-net providers after health care reform: lessons from Massachusetts, *Archives of Internal Medicine*, 2011.
  - 2005-2009
  - Used mixed-model approach administrative data, case study interviews and telephone survey, care in CHCs increased, non-emergency ambulatory care visits grew twice as fast at SNH than at NSNH, most safety net patients reported using these facilities because they were convenient and affordable

Gaps to fill and Research questions

- Gaps to fill
  - Bring data analysis up to present
  - Conduct analysis by community and safety net status
  - Look specifically at factors that predict hospital performance
- Research questions
  - What was the impact of the reform on non-teaching, community-based acute care hospitals?
  - What was the impact of the reform on hospitals that serve a disproportionate share of low-income patients?
  - What factors are related to overall hospital performance?

Methodology

- Safety-net hospital definition: Minimum of 63 percent of gross patient service revenue from Medicaid, Medicare, other governmental payers, and free care
- Teaching hospital: Medicare Payment Advisory Commission, definition of at least 25 full-time equivalent medical school residents per one hundred inpatient beds
- Exclusions: 3 "specialty" hospitals: Children's Hospital, Massachusetts Eye and Ear, and Dana-Farber Cancer Institute, and Boston Medical Center and Cambridge Health Alliance because of their "special" financing arrangements with the State
- Model: Difference-in-difference approach with pre-reform years (2005 and 2006) and post reform years (2007-2013)
- Outcome variables: inpatient utilization, inpatient net patient service revenue (NPSR), inpatient NPSR per discharge, outpatient visits, outpatient NPSR, outpatient NPSR per visit, occupancy rate, and total operating margin
- Control variables: median household income in hospital's zip code, number of beds, patient revenue by source, profit status, presence of unions (SEIU and MNA) and number of staffed beds

Results: Descriptive

Financial Condition and Utilization Statistics for Massachusetts Acute Care Safety Net and Non-Safety Net Hospitals before Reform (2005)

Variable	NSNH		SNH		
	Mean	SE	Mean	SE	P-Value
Total Operating Margin	1.86	0.61	-0.40	0.91	0.015*
# Inpatient Discharges	13,442	1,871	11,441	2,639	0.669
Inpatient NPSR Mil $	117	26	77	18	0.789
Inpatient NPSR/discharge	6,485	459	6,588	396	0.094
# Outpatient Visits	200,032	34,695	177,747	57,887	0.817
Outpatient NPSR Mil. $	112	18	76	18	0.206
Outpatient NPSR/visit	704	48	543	90	0.084
% NPSR Government	46.95	1.17	63.33	1.70	<0.001*
% NPSR Commercial	46.91	1.31	28.47	1.96	0.000*
# Staffed Beds	233	31	231	54	0.817
Occupancy Rate	61.66	2.04	65.44	3.54	0.254

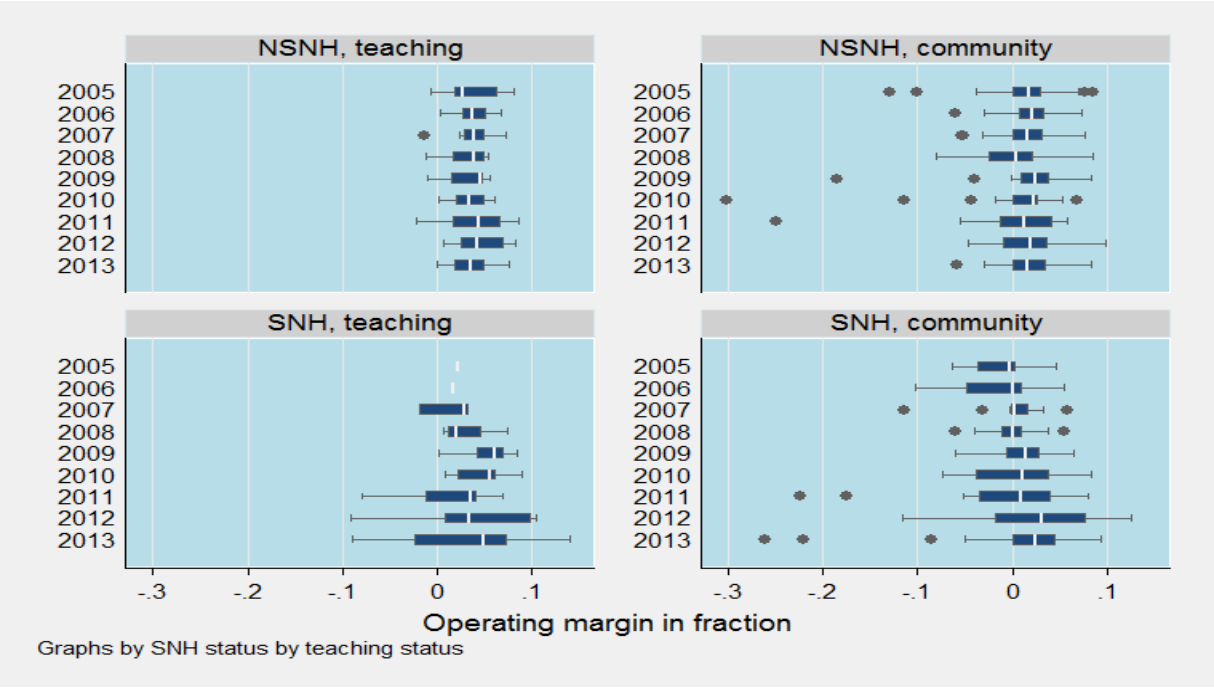
Results: Descriptive

Characteristics of Massachusetts Acute Care Teaching and Community Safety Net and Non-Safety Net Hospitals, Before and After Reform

	NSNH Teaching		NSNH Community		SNH Teaching		SNH Community	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Average # Hospitals	12.0	9.0	33.0	25.3	2.0	5.0	12.0	19.6
Operating Margin	3.78	3.62	1.58	1.00	1.95	3.27	-1.09	0.48
# IP Discharges	27,436	29,570	8,540	8,805	12,033	19,134	11,285	9,959
IP NPSR/Dis. $	10,591	13,843	5,205	6,641	9,872	12,023	6,315	7,681
# OP Visits	455,006	511,960	110,599	117,368	111,151	265,596	187,969	149,310
OP NPSR/Visit $	672	857	767	915	755	786	511	764
# Staffed Beds	464	485	155	150	265	349	223	186
Occupancy (%)	72.7	73.5	57.2	54.9	63.9	59.9	64.9	54.6

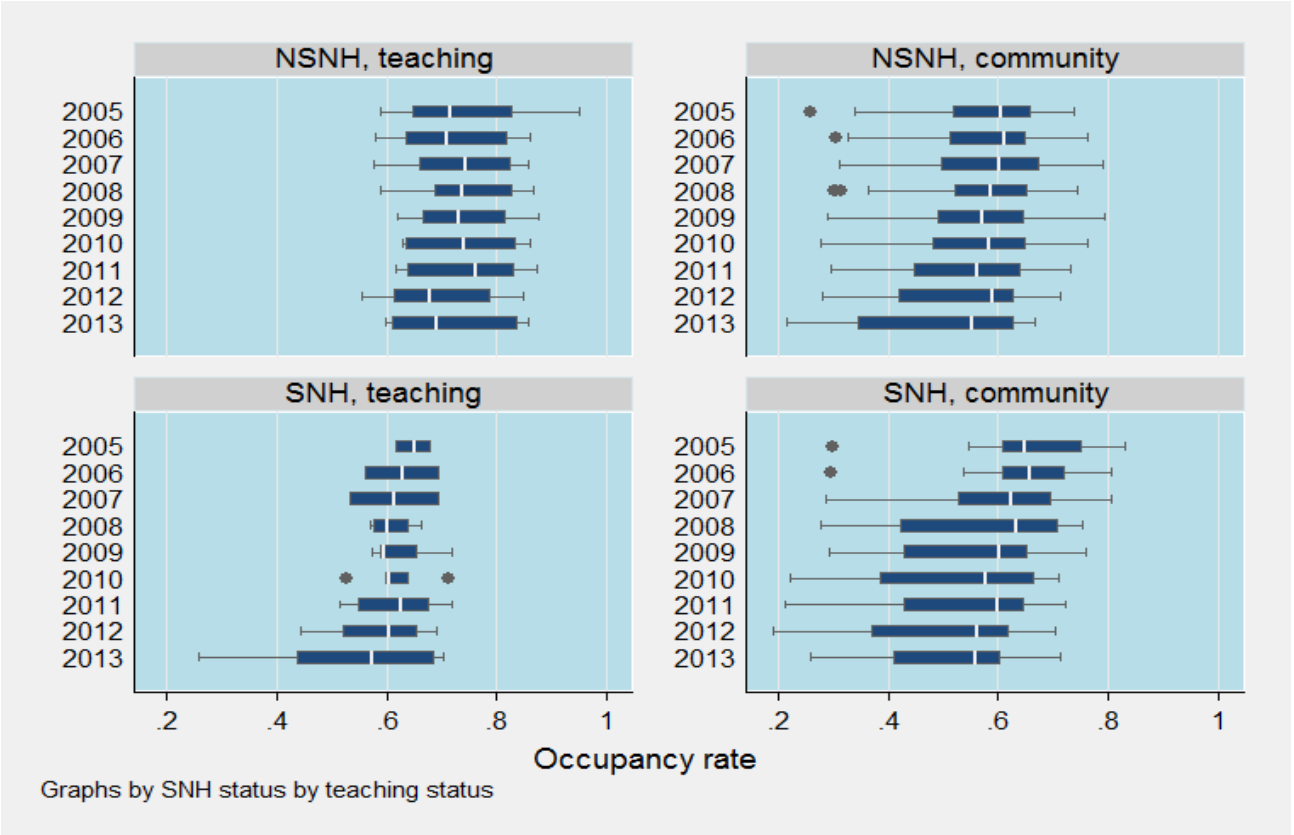
Results: Descriptive

Box-Plot of Total Operating Margin, by Hospital Group, 2005-2013



Results: Descriptive

Box-Plot of Occupancy Rate, by Hospital Group, 2005-2013



Results: Primary Analysis

Changes in Patient Volume, Revenue, and Total Operating Margins in Safety Net and Non-Safety Net Hospitals, FY 2005-FY2013

	Difference in Rate of Change (SNH – NSNH)					
Variable	Unadjusted			Adjusted		
	Coefficient	SE	P-Value	Coefficient	SE	P-Value
Operating Margin	0.0014	0.001	0.298	0.002	0.0013	0.115
# IP Discharges	-155.5278	37.030	<0.001*	-141.977	37.3951	<0.001*
IP NPSR/Discharge $	-84.1798	36.302	0.020*	-88.817	36.7597	0.016*
Occupancy Rate %	-0.01092	0.002	<0.001*	-0.011	0.001669	<0.001*
# OP Visits	-496.1575	1053.791	0.638	-169.355	1067.7221	0.874
OP NPSR/Visit	-22.2206	5.443	<0.001*	-23.413	5.5234	<0.001*

Notes: Mixed-effects model, adjusted for hospital as random intercepts.
Unadjusted models have year, DSH status, and year by DSH interaction as independent variables.
Adjusted models further control for teaching status, for-profit status, union presence, number of beds, and 2008-2012 overall median household income in the nearest zip code.
* = Statistically significant at $p<0.05$

What factors matter?

Comparison between hospitals below 20th percentile and hospitals above 20th percentile

Variable	>/= 20th Percentile	<20th Percentile
With Union, in 2005	29.8%	50.0%
Community Hospital	72.3%	91.7%
Safety-Net Hospital, in 2005	21.3%	41.7%
% NPSR from Government, 9 yr. avg.	59.5%	63.0%
% NPSR from Commercial, 9 yr. avg.	43.7%	38.9%
Median Household Income in Hospital Zip Code	82,179	74,869

Discussion

- Medicaid coverage has doubled since reform putting pressure on hospitals with high Medicaid occupancy
- In fewer than 10 years, the number of MA hospitals that became Disproportionate Share Hospitals (DSH) increased from 17 to 34, with the majority of change occurring at the community level.
- Community hospitals are performing worse post reform than pre-reform, and compared to teaching hospitals
- Community DSH hospitals have fared the worst
- The DSH results concur with at least one other academic study (Mohan)
- Several community hospitals have recently closed their doors providing fewer affordable options to residents of the Commonwealth
- There is a lot of variability in hospital performance both before and after reform partially explained by community hospital status, union presence, affluence of community, long-term safety net status, and payer mix

Limitations/Questions?

- Could only study factors for which we had data
- The variability in performance makes situation look less dire
- Need better understanding of why utilization patterns are shifting away from community hospitals
- May be important to assess the affect of competition from nearby satellites from larger Boston hospitals on community hospital utilization and financial status

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- Approval of Minutes from the April 15, 2015 Meeting (VOTE)
- Presentation on CHART Phase 1 Report
- Update on CHART Phase 2 Implementation Planning
- Discussion of CHART Provider Engagement Plan
- Presentation on the Impacts of Health Care Reform on Massachusetts Safety Net Hospitals
- **Schedule of Next Committee Meeting**