Community Information Exchange SUMMIT

Demonstrating ROI: Elder Services and HIE Collaboration

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Community Care Connections

Integrating Lifespan's community-based services with health care systems.

Lifespan of Greater Rochester

"Helping older adults take on the challenges and opportunities of longer life."

30+ services
39,000 people in Rochester & Finger Lakes region.
Older adults.
People with disabilities of any age.
Caregivers.

“Four in five physicians say patients’ social needs are as important to address as their medical conditions.

This is health care’s blind side: Within the current health care system, physicians do not have the time or sufficient staff support to address patients’ social needs.”

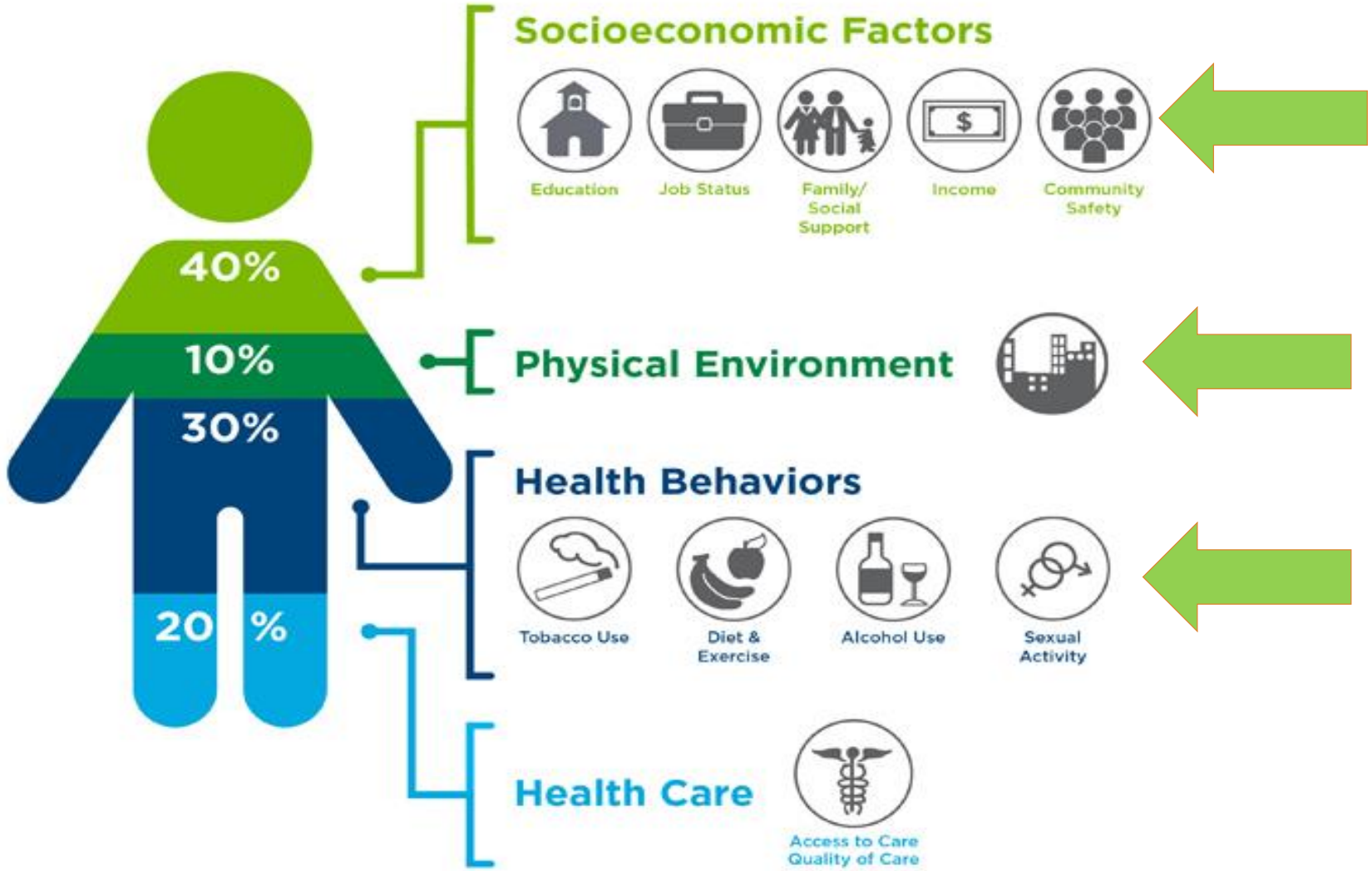
Robert Wood Johnson Foundation, 2011

“By looking outside of itself, the health care system can enhance care for its patients and avoid duplicating effort.

Community programs can support or expand a health system's care for chronically ill patients, but systems often don't make the most of such resources.”

Wagner, Chronic Care Model.

Building an Integrated Delivery System - Addressing Health AND Social Determinants of Well-Being



Source: Institute for Clinical Systems Improvement, Going Beyond Clinical Walls: Solving Complex Problems (October 2014)

The Bridgespan Group

Community Care Connections Strategic Vision

Prove that integrating traditional community-based aging services with medical systems of care positively affects the triple aim of cost, quality and patient satisfaction.

Access to the right care, at the right time, at the right place.

Community Care Connections (CCC)

- Replicable model of integrated care for older adults.
- Reduce inappropriate hospitalizations & ED visits. Save $.
- Determine which community-based aging services make a difference in health outcomes.
- Evaluate physician response to integration of social services.
- Reduce family caregiver stress.

Methodology: Care Access Point Integration

- Embed social work care navigators in five physician practices in Monroe, Ontario & Livingston counties.
- Referrals from certified home care agencies.
- Referrals from 30 non-embedded physician practices.
- Healthcare coordinators (LPN nurses & community health workers) for a subset of complex, high need patients. Supervised by an RN.

Patient Inclusion Criteria

- 60+
- Difficulty navigating health care system.
- History of missed appointments.
- Aging/stressed caregiver.
- Lives alone.
- 2+ ED visits/hospitalizations in past year.
- Low health literacy.
- History of non-adherence with treatment plan.
- Co-morbidities, especially those that limit ADL's
- Need for assistance with benefits, housing and/or socialization.

Social Work Care Navigation

Geriatric wellness assessment.

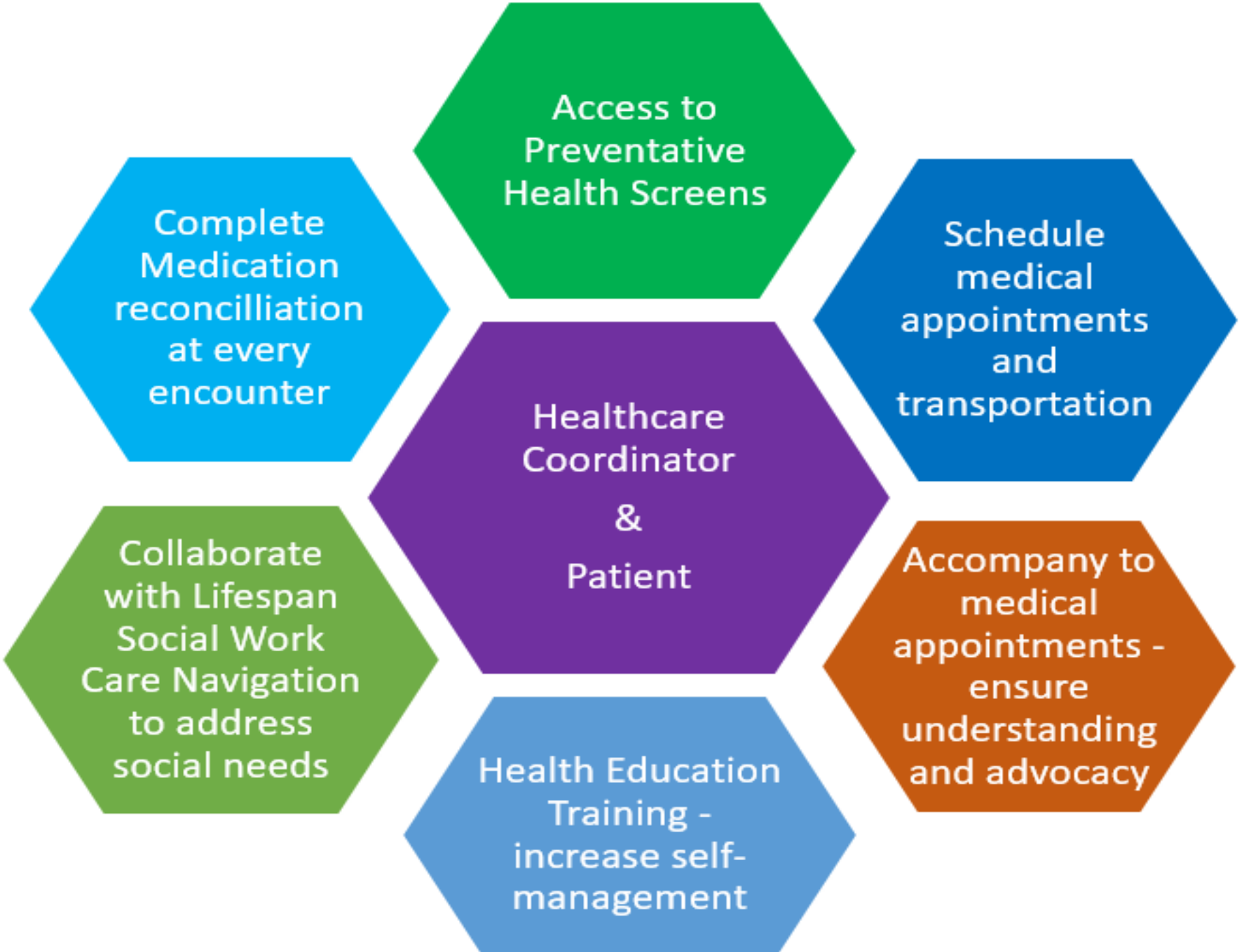
Ongoing home visits.

Care plan.

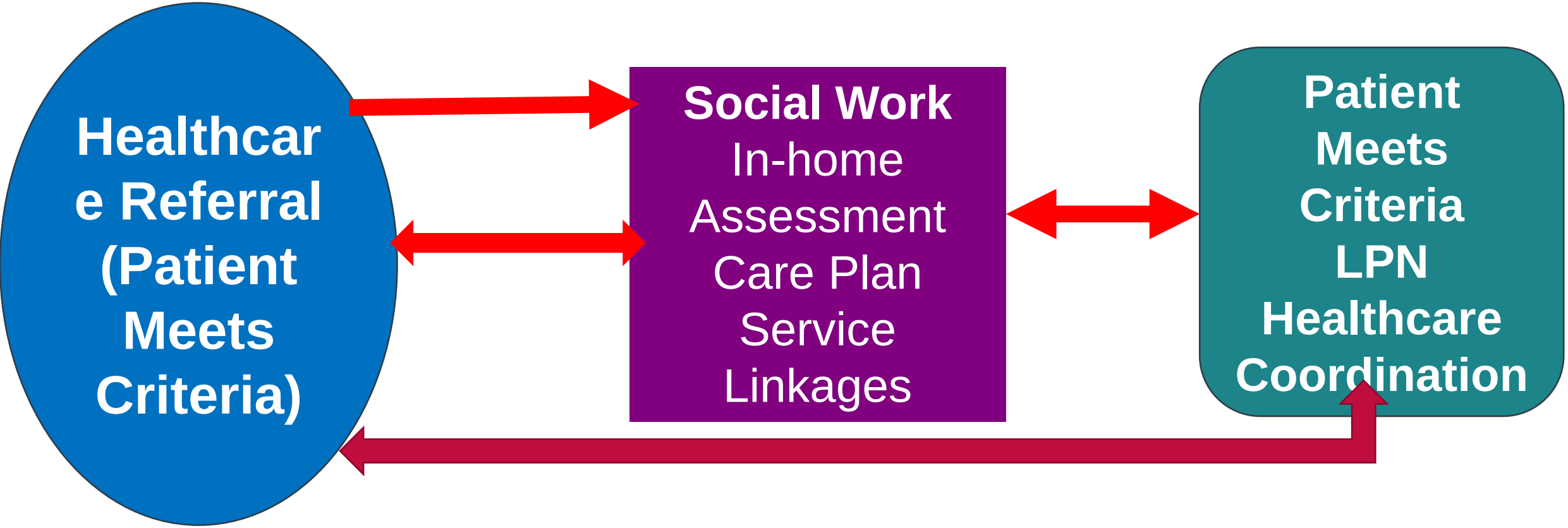
Linkages to supportive services.

Housing, financial benefits, transportation, respite, mental health intervention, chronic disease management workshops, geriatric addictions intervention, home safety mods, caregiver supports, etc.

Healthcare Coordination

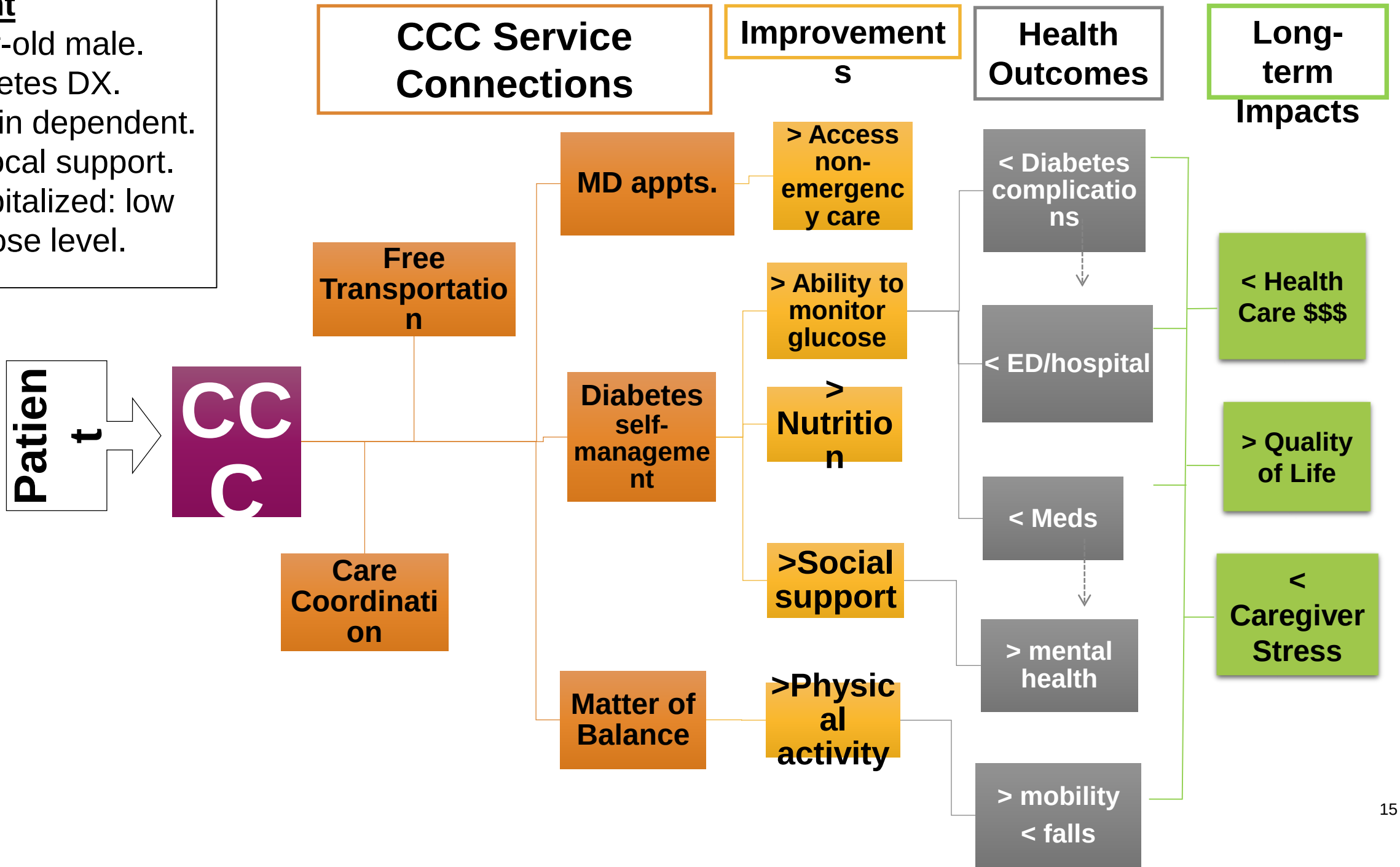


Red = New Communication Process



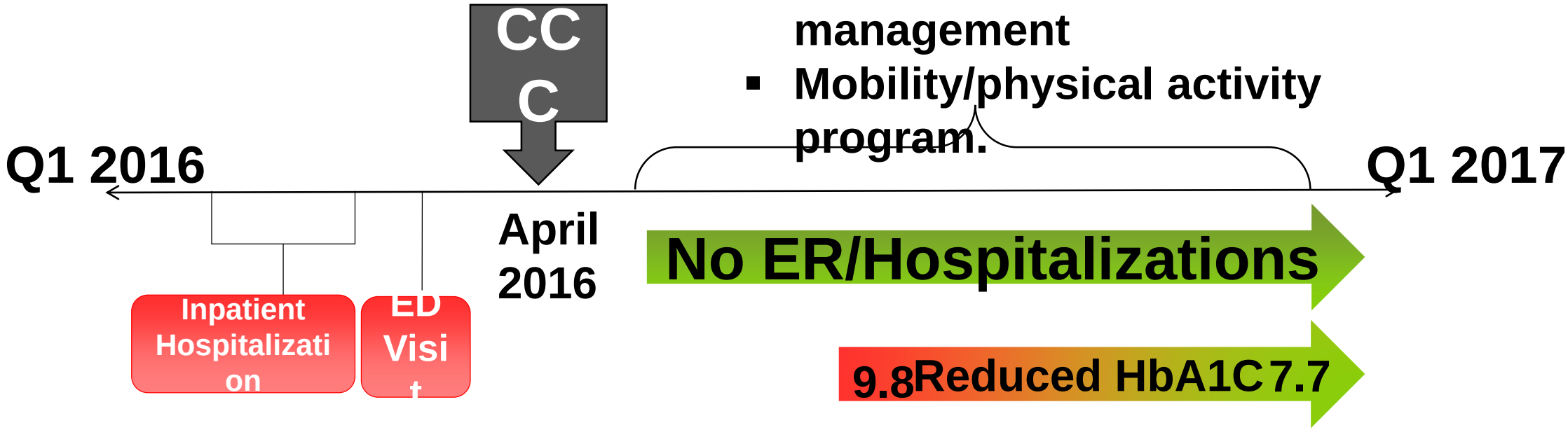
Patient

- 67 yr-old male.
- Diabetes DX.
- Insulin dependent.
- No local support.
- Hospitalized: low glucose level.



2016-2017 Timeline: Patient A

- Care navigation.
- Transportation.
- Diabetes self-care management
- Mobility/physical activity program.



Average costs* per patient 65+
Hospitalization: $13,907
ED Visit: $918

*NYAM calculations based on 2014 data from the Medical Expenditure Panel Survey, adjusted to December 2016 using the Consumer Price Index for medical care (U.S. city average, all urban consumers). The sample included for the average cost calculations included adults 65 years of age and older with Medicare or Medicaid health insurance coverage which had a hospitalization stay or an emergency department visit.

Objectives with Results

Increase medical professionals' understanding of how patients' previously unknown social determinants impact their health outcomes.

100% surveyed acknowledged the positive impact on patients' health.

60% of caregivers report a decrease in stress as compared to baseline.
Modified Caregiver Strain Index: 87% of caregivers reported <.

60% of patients/caregivers access at least 1 community-based support service.

94% accessed at least one community-based service.
3,741 community- based services were accessed with an average of 3.78 services per patient.

Objectives with Results

85% of patients advance at least one grade in at least one domain of the Older Americans Resources and Services Scale (OARS).

92% advanced at least one grade in at least one domain of the OARS.

Increase patient/caregiver satisfaction with information/assistance.

100% satisfaction.

Evaluation and Results

Evaluator: New York Academy of Medicine
Effectiveness and ROI.

Rochester Regional Health Information Organization
(RRHIO)
ED and hospitalization encounter data for pre- and post-intervention comparisons.

Three years - 1667 patients.

1,003 signed Independent Review Board (IRB) consent for data analysis.

Data Flow

PeerPlace Customized Platform: Demographics, Dx, assessment, referral.
Rochester RHIO Data: Hospital inpatient and emergency encounters from health systems in Greater Rochester region.

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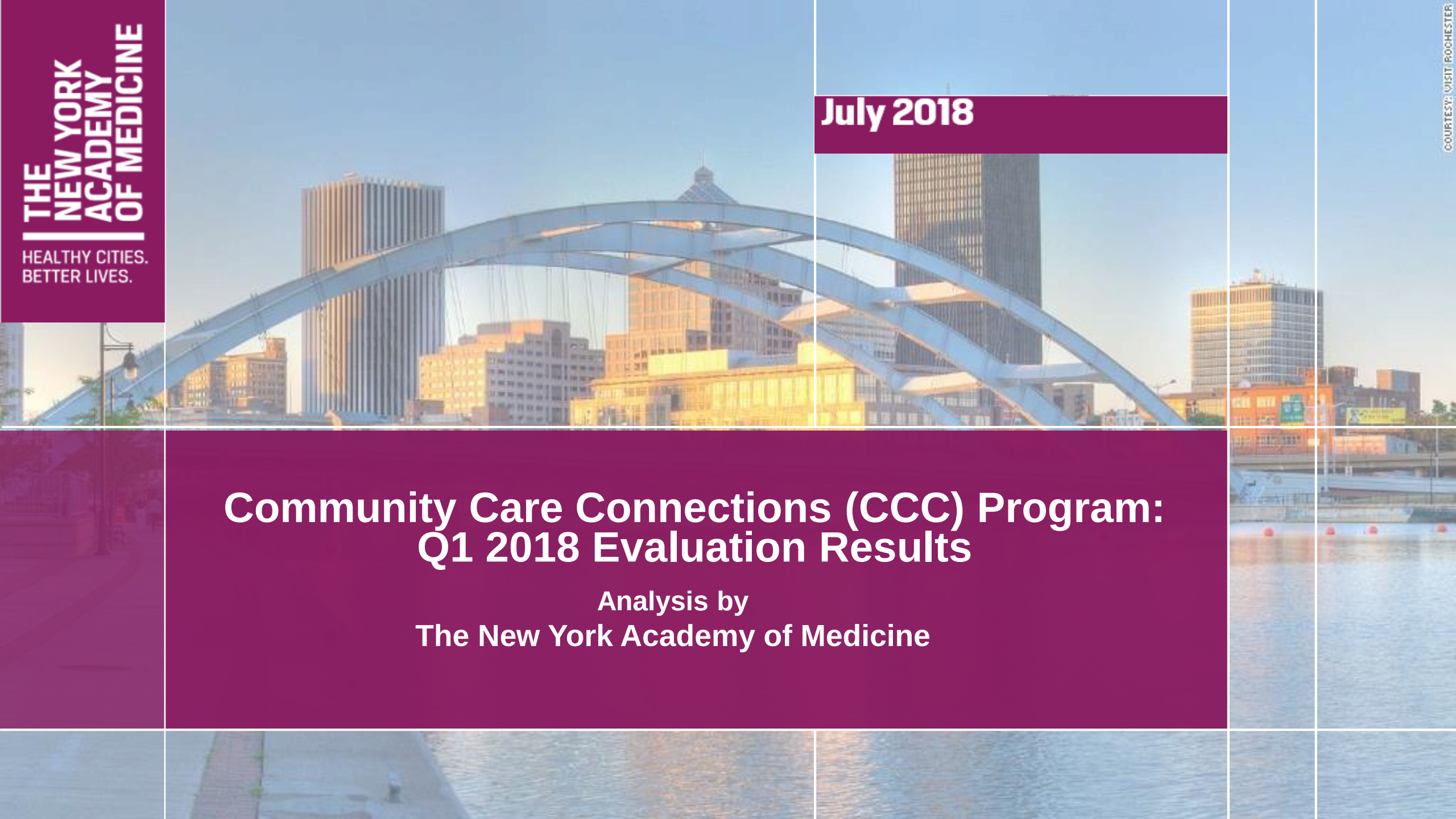
HEALTHY CITIES. BETTER LIVES.

July 2018

Community Care Connections (CCC) Program: Q1 2018 Evaluation Results

Analysis by

The New York Academy of Medicine



Patient Profile (3 years)

62% Female

63% 75+ 26% 85+

79% White/13% Afr-Am/3% Hispanic/Latino

60% Low-income (<$1500/mo)

41% Live alone

68% Two or more chronic conditions

76% Monroe Co.

Average of 148 days in service

DIAGNOSES

Condition	N	%
Hypertension	413	41%
Diabetes	267	27%
Depression	207	21%
Arthritis	201	20%
High Cholesterol	193	19%
Dementia	178	18%
Chronic Obstructive Pulmonary Disease	166	17%
Coronary Artery Disease	105	10%
Cancer	102	10%
Heart Failure	81	8%
Kidney Disease	70	7%
Stroke	75	7%

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PRE/POST: HEALTH CARE UTILIZATION

Average number of hospitalizations and emergency department visits per client decreases after 90 days of CCC program participation.

	# of CCC Clients (N)	Pre CCC	Post CCC	% Change
Hospitalizations ** p<.05*	894	0.11	.07	-36%*
ED Visits	894	0.45	0.28	-38%*

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PRE/POST: HEALTH CARE UTILIZATION

Fewer patients have multiple hospitalizations and emergency department visits after participating in the CCC program for 90 days.

	Pre-CCC	Post-CCC	% Change
Hospitalizations			
0	816	843	+3%
1	63	42	-33%
2+	15	9	-40%
ED Visits			
0	648	741	+14%
1	155	99	-36%
2	59	28	-52%
3+	32	26	-19%

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PRE/POST: HOSPITALIZATIONS AND ED VISITS BY INSURANCE

Referral Source	N	Pre Hosp	Post Hosp	% Change	Pre ED	Post ED	% Change
Medicare (no Medicaid)	721	.10	.07	-10%*	.44	.26	-41%*
Medicaid (no Medicare)	21	.14	.10	-29%	.14	.29	+107%
Dual Eligible	95	.14	.11	-21%	.60	.41	-32%

*$p<.05$

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Pre/post Effect of the Intervention by Diagnosis

Decreased Hospitalizations

Diagnoses	% Change
Coronary Artery Disease	- 80% *
Heart Failure	- 59%
Stroke	- 67% *
Cancer	- 47%
High Cholesterol	- 33%
Diabetes	- 33%

** p<.05*

Decreased Emergency Room Visits

Diagnoses	% Change
Heart Failure	- 73% *
Hypertension	- 46% *
Kidney Disease	- 43%
High Cholesterol	- 36% *
Diabetes	- 34% *

PRE/POST: HOSPITALIZATIONS AND ED VISITS BY # OF COMORBIDITIES

# of conditions	N	Pre-CCC Hospital Events	Post-CCC Hospital Events	% Change	Pre-CCC ED Visits	Post-CCC ED Visits	% Change
0	101	.19	.11	-42%	.28	.18	-36%
1	185	.09	.08	-11%	.56	.34	-39%*
2	191	.10	.08	-20%	**.50**	**.24**	**-52%***
3	156	**.05**	**.03**	**-40%**	.37	.24	-35%*
4	110	**.09**	**.03**	**-66%**	.50	.40	-20%
5+	151	.15	.11	-27%	.42	.28	-33%*

** p<.05*

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PRE/POST: HOSPITALIZATIONS AND ED VISITS BY REFERRAL SOURCE

Referral Source	N	Pre Hosp	Post Hosp	% Change	Pre ED	Post ED	% Change
Contracted physician office	493	.10	.06	-40%	.29	.19	-34%*
Non-contracted physician office	120	.10	.06	-40%	.59	.41	-31%*
Home care agency	211	.15	.10	-33%	.78	.43	-45%*

** p<.05*

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PRE/POST HOSPITALIZATIONS AND ED VISITS BY SERVICE RECEIVED

Service	N	Pre Hosp	Post Hosp	% Change	Pre ED	Post ED	% Change
Caregiver support	265	.13	.08	-38%	.27	.20	-26%
Financial benefits counseling	250	.14	.10	-29%	.36	.20	-44%*
Transportation (all)	168	.08	.05	-38%	.47	.31	-34%*
Health insurance counseling	142	.15	.11	-26%	.34	.27	-21%
Transportation (non-Medicaid)	131	.09	.05	-44%	.54	.34	-37%*
Home modification	125	.10	.11	+10%	.51	.27	-47%*
Bill paying	71	.14	.04	-71%	.46	.37	-20%
Chronic disease classes	62	.10	.06	-40%	.24	.19	-21%
Home meal delivery	56	.125	.05	-60%	.41	.16	-61%*
Managed long-term care	47	.09	.02	-78%	.21	.13	-38%
Diabetes classes	40	.13	.03	-77%	.25	.20	-20%
Matter of Balance	29	.07	.03	-57%	.28	.14	-50%

** p<.05*

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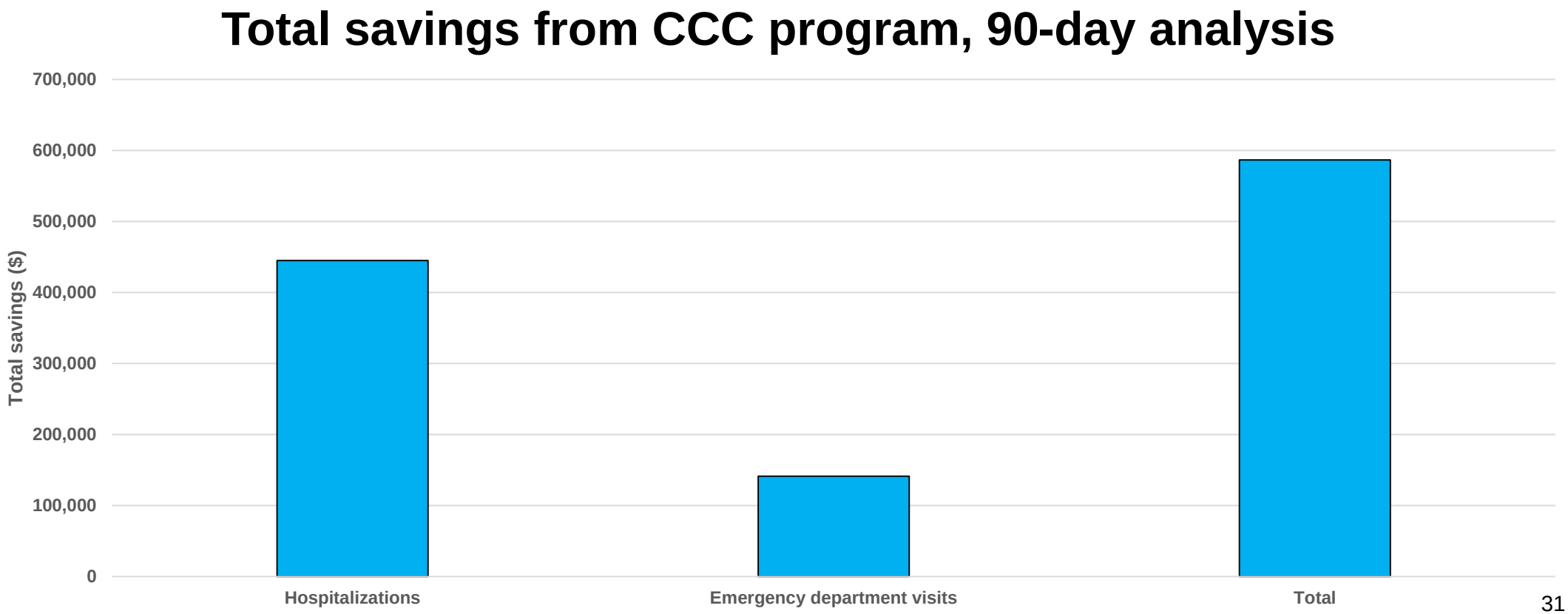
SUMMARY: ROI

- Three months of post-enrollment health care utilization data was available for 894 CCC patients with associated service cost for three month period of $136,335.
- These expenditures were associated with $586,501 in savings as a result of fewer hospitalizations and emergency department visits.



SUMMARY: RETURN ON INVESTMENT

In this analysis, every dollar spent on the CCC program is associated with **$4.30 in savings** resulting from fewer hospitalizations and emergency department visits.

Conclusions

The return on investment in Community Care Connections is significant.

CCC successfully integrated with healthcare access points to **break-down the siloes** between community-based aging services and medical systems of care.

The most successful healthcare access point integration occurred with physician practices (embedded and non-embedded) and certified home healthcare agencies.

Conclusions

All medical professionals surveyed acknowledged the impact of Lifespan's ability to address social determinants on their patients' health.

Common responses included a recognition of the value of:

1. The care navigator and healthcare coordinators' home visits. ("My eyes in the home.")
2. Our social workers' knowledge of resources.
3. The evident improvement in their patients' health and well-being as a result of linkages made by CCC

“It has been a huge asset to my older patient population. She was able to help with many difficult patients who, for years had been with the practice without help; now we are finally making progress.” ~ Steve Betit, M.D. Panorama Internal Medicine

“Paul uncovered details about my patients’ health with his home visits that have been very helpful to me in treating them. He can identify and solve social stressors that are contributing to our patients’ health.” ~ Dr. Kellin King, Partners in Internal Medicine.

“It has turned her medical care around completely for the better. Your LPN worker has been amazing. She connects with her incredibly well, keeps track of and makes sure she gets to her appointments, monitors her medications for her, and is overall maximizing her quality of life and medical care.” ~ Brett Robbins, MD, Culver Medical Group, Rochester, NY

NYAM/Robert Wood Johnson Foundation

Project timeframe: December 2017 - December 2019

Robert Wood Johnson Foundation grant will create a control group in partnership with the RRHIO and with technical assistance from Lifespan.

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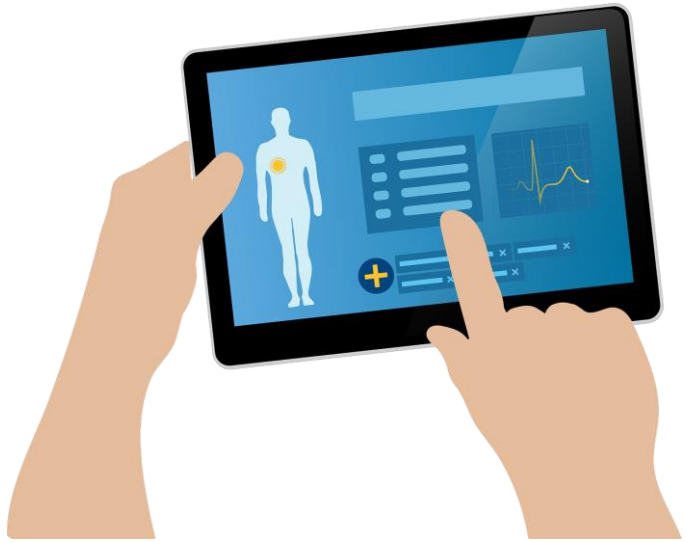
Demonstrating ROI:
Elder Services and HIE Collaboration

Health Information Exchange:
Role of Rochester RHIO



CIE Summit 2019
Jill Eisenstein, President and CEO
April 2019

Health Information Exchanges

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What is an HIE?

Organization that allows health professionals and/or patients appropriate access and capability to securely share patient health information electronically.

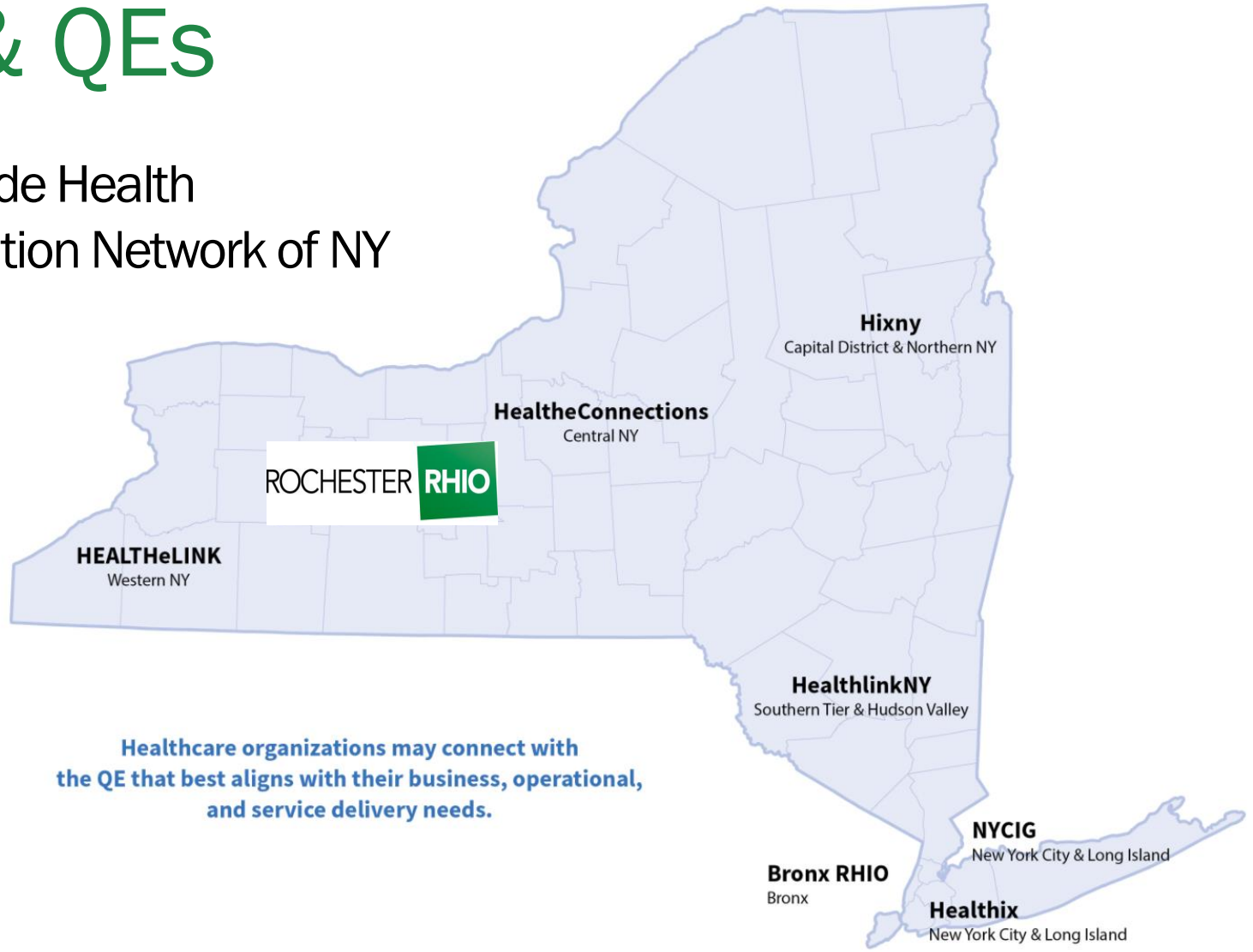
HIE Benefits

- Enables providers to securely access & confidentially share patients' vital medical history, no matter where patients are receiving care—specialists' offices, labs, or emergency rooms.
- Provide safer, more effective care tailored to patients' unique medical needs.

https://www.healthit.gov/topic/health-it-basics/health-information-exchange

SHIN-NY & QEs

Statewide Health
Information Network of NY



http://www.nyehealth.org/shin-ny/qualified-entities-qes/

RHIO Health Exchange

- **Our Goal:**

Better information for better patient care by providing authorized participants access to patient information.

- **Our Focus**:

Bring more comprehensive picture of patient to community by increasing data available in HIE.

RHIO Health Exchange

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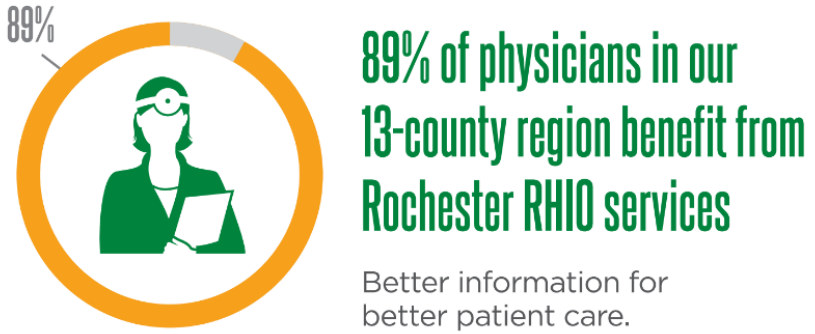
We provide authorized medical providers, care managers, and appropriate community-based organizations with electronic access to:

- Lab reports
- Radiology results, images
- Clinical reports
- Ambulatory care summaries
- Hospital admission/discharge notification



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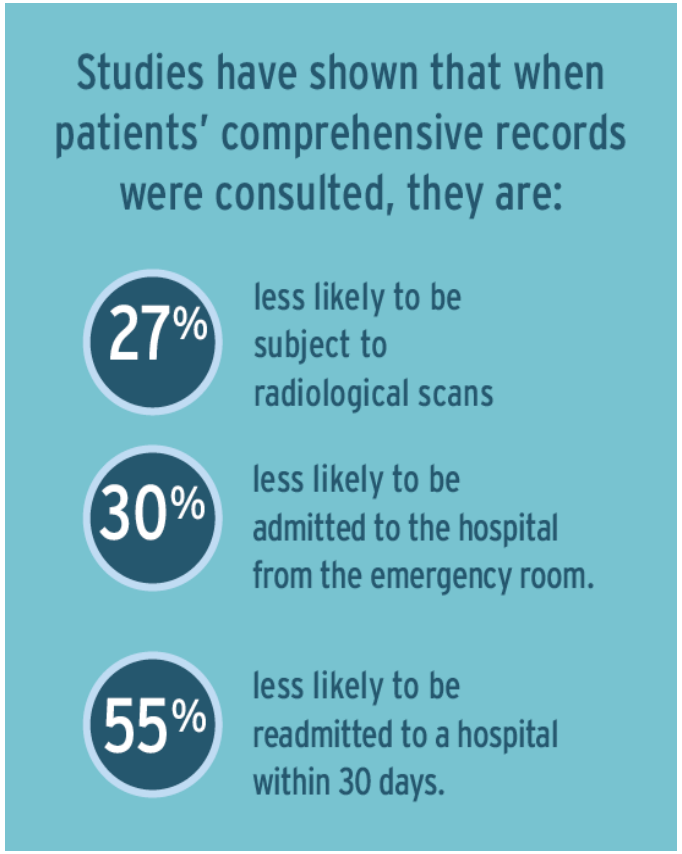
RHIO by the Numbers - Monthly	January 2016	January 2019	% of Growth
Explore Logins (Clinical Query Portal)	27,640	43,416	57%
Alerts Delivered (Real-time Notifications)	8,225	313,071	3,706%
MyResults Delivered (Lab results sent to Doctors)	664,507	1,818,922	173%
DIRECT Messages Exchanged (Secure email service)	11,601	52,979	356%
Between 6-10 million total clinical transactions (incoming) each month. More than 50+ new Explore applications are processed weekly.			

RHIO Health Exchange

Proven Impact: By providing access to community and statewide patient information we've been able to demonstrate an **average 55% reduction of hospital readmissions within 30 days** of a hospital stay.



Community Based Agency's View on Usefulness of Explore:

"… Using the Explore query tool has helped Starbridge obtain more background information on exacerbations of pre-existing conditions. It has also helped us get lab and test results quicker.

Once we have the results, we review them and send any abnormalities off to the provider to review and return with any changes to the treatment plan. Previously, this process would take 7 - 10 days to complete. It now is accomplished in 1-2 days".

- Rebecca Lepel, Starbridge Community Residences

Note: Studies were conducted in Rochester with the use of Rochester RHIO's data. Researchers from Weill Cornell Medical College. Three studies have been published by peer-reviewed journals and demonstrate significant savings in system efficiency and improved health care quality.

Patient Care Improvements:

*"RHIO Alerts allow us to see where our clients are in real time as they interact with the area hospitals. We are able to **intervene**, and (we) have been able to actually **prevent admissions** by assisting to coordinate services for the client in a timely fashion."*

~ Allison Dills, LPN Healthcare Coordinator, Lifespan

Lifespan recently completed a big data project that is breaking down the barriers between traditional medical care and community-based aging services. In partnership with Rochester RHIO and New York Academy of Medicine. Lifespan is using an integrated approach to demonstrate how it improves the overall health of the people it serves (ages 60 and over).

*"For us to be able to use **real data about hospitalization and ED use** could completely transform the work Lifespan does."*

~ Ann Marie Cook, President & CEO, Lifespan

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CONTRIBUTE

Rochester RHIO and Jewish Senior Life Partner to Share Data and Build a Better Patient Record

Nov 12, 2018

Rochester, NY—November 12, 2018 — More than half of Americans will require long-term care in their lifetime—and while an aging population turns to retirement communities and skilled nursing facilities, many of these individuals will continue to receive care from multiple community providers and hospitals.

Social Determinants

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Social Determinants of Health & other indicators are the future of healthcare exchange, which is why community work is already underway to consider those factors.

- Medicaid transformation & value-based payment models incentivize holistic view of health
- Healthcare system expanding concept of “treatment” to include food and housing insecurity, domestic violence, transportation
- Focus on social determinants of health to reduce need for “healthcare”

Community-Based Organizations

- Medicaid Transformation, access to funding for IT
- Transportation Example:
  - Need reliable transportation to work, to daycare, to supermarket
  - Looking beyond transportation to healthcare appointments

Social Determinants

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Systems Integration Project

- Cross sector data exchange for social services, education and health care organizations
- Leverage experience and infrastructure of regional health information exchange
    - Policy and Legal framework: White Paper published
    - Technical infrastructure
    - Tools and skill set for data sharing, data governance, data quality, data aggregation & analytics
    - Build on experience in community collaboration