SESSION 501

OUTREACH BY CARE MANAGEMENT TEAMS & COMMUNITY HEALTH WORKERS WITH FRAIL ELDERLY IN MUSKEGON COUNTY: FIRST YEAR OUTCOMES & ROI

Delivered at the Michigan Premier Public Health Conference, October 5th, 2017. Mackinac Island, Michigan

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Funded under a grant from Trinity Health
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HEALTH PROJECT
A COMMUNITY BENEFIT MINISTRY OF MERCY HEALTH

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Background

- The ***"Muskegon Senior Care Transitions (SCT) Project",*** initiated in December, 2015, was proposed to Trinity Health's Call to Care Foundation with the intent to *reduce the 90-day hospital readmission rate of African Americans and older, "dual-eligible" adults who enter a skilled nursing facility (SNF) after discharge from an inpatient setting*.
- This was to be accomplished through pairings of the patients with community health workers (CHWs)

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Background

- The CHWs would:
  - "support optimal hospital discharge planning and information flow to the SNF staff,
  - support a smooth transition for the patient,
  - reduce the risk of preventable yet all too common causes of readmissions back to the hospital, and,
  - continue to support the patient as she/he transitions back home." (Stein, 2015).

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Background

- The CHWs would:
  - advocate for the patient and family during the transition from the SNF to home,
  - address social determinants of health that interfere with transitions to home, and
  - assist in collecting information about the patient's recovery process.
  - use the Pathways model (Redding, M. & Redding, S., 2008) to determine appropriate supportive interventions,
  - work under the supervision of a registered nurse (RN) case manager.

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Background

- In addition to the interventions to address social determinants, a mobile tablet-based computer application, **Care-At-Hand®**, was used
- It provides prompts to ask questions of the patient and family, that may trigger alerts signaling a need for the RN to further assess the patient's status, and intervene as appropriate.
- The Care-At-Hand® program had been tested in the field by its developer, and found to predict risk for hospital readmission through predictive analytics derived from the answers to the questions (Ostrovsky, et al., 2016).

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Background

The Pathways Model (Redding & Redding, 2008)

Community Health Workers (CHWs) manage caseload of clients, assess social determinants of health (living situation, SES, food, etc.)

Based on social determinants, “pathways” of interventions are carried out to address those identified

Services and resources from a central “hub”, including supervising professionals, are standardized and monitored for the various social needs

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Significance of project

- In the 2000–2005 National Health Interview Survey (NHIS) of 25,593 noninstitutionalized respondents aged 65 and over who were enrolled in fee-for-service (FFS) Medicare…
  - **21.6%** were hospitalized,
  - There was a discharge rate of 348.4 per 1,000 population
  - Among those who were hospitalized and discharged alive, **17.3%** were readmitted within 30 days after discharge.
  - Among the ~ 4.5% who died within 1 year of the interview, about one-quarter of the deceased died in the hospital (including 7.1% who died during a readmission stay)

(Gorina, Pratt, Kramarow, & Elgaddal, 2015)

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Significance of project

- In response, since 2012, the Centers for Medicare & Medicaid Services' (CMS') Inpatient Prospective Payment System (IPPS) for Medicare penalizes hospital annual payment updates for readmissions within 30 days of discharge for several conditions, including heart attack, heart failure, hip/knee replacements and pneumonia; hospital-wide readmissions are also reported (may be added as another category for penalty; CMS is also committed to extending the readmission penalty to up to 90 days)
- Penalties apply to readmissions from SNFs, as well as from client homes

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Significance of project

- The Improving Medicare Post-Acute Care Transformation Act of 2014 (IMPACT Act), enacted on October 6, 2014, requires the implementation of a quality reporting program for SNFs beginning with FY 2018
- The SNF 30-Day Potentially Preventable Readmission Measure, (SNFPPR)—the hospital readmissions for SNF patients within 30 days of discharge from a prior admission to a hospital--is slated to be reported by SNFs as a quality measure in 2018

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Significance of project

- Many issues are associated with readmissions, including a variety of errors, nosocomial infections, and other inpatient care factors
- Many health care errors are linked to communication breakdowns about the health needs and living situations of those who are receiving care
- CHWs may assist health care team in communication of client-specific health care needs

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Significance of project

https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health

"Social determinants of health are the conditions in which people are born, live, work, and age that affect their health."

(Healthy People 2020)

Addressing SDOH is a way of addressing issues that may cause readmissions

Senior Transitions – Project priorities year 1

- Determining appropriate eligibility criteria. (Insurance types, and integration with other care coordination services)
- Creating mechanisms for initiating client relationships.
- Initiating records of services for clients.
- Developing effective communication patterns and processes for quality care and client safety.
- Work with community resources and Health Project hub.
- Providing support and monitoring client status.
- Testing Care-At-Hand® software.

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Senior Transitions – Project priorities year 1

Determining appropriate eligibility criteria. (Insurance types, and integration with other care coordination services)

Initial eligibility criteria: (a) "older", and (b) "dual-eligibles"; i.e., disabled adults who qualify for Medicare and Medicaid (Stein, 2015).

Hospital & SNF had existing services for "bundled" payments—included professionals and CHWs, but "stretched" → Sr. Transitions staff took responsibility

Targeted Case Management—not duplicative → Sr. Transitions staff took responsibility

Lagging enrollment– added individuals who were insured by Medicare, Medicare Advantage, and other supplemental insurance programs

Medicaid Waiver—very duplicative, and too many people in home—confusion to client, family, and team → Sr. Transitions staff took responsibility until waiver approved, then handed off

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Senior Transitions – Project priorities year 1

Creating mechanisms for initiating client relationships

Needed a signed Release of Information form…problems

Ideal time for initial involvement of CHW—shortly after admission, but many admissions unplanned

Next best time to allow assistance with discharge—most discharges unpredictable, often decision and transfer occurred within few hours, Transitions team could not make contact within that timeframe

Changes initiated in procedures for obtaining the signed Release

- If discharge planned within 24-48 hours: consent and ROIs in the hospital by the referral specialist
- If a discharge planned several days out: CHWs made contacts to enroll the client
- If transferred/discharged: CHWs pursued enrollments

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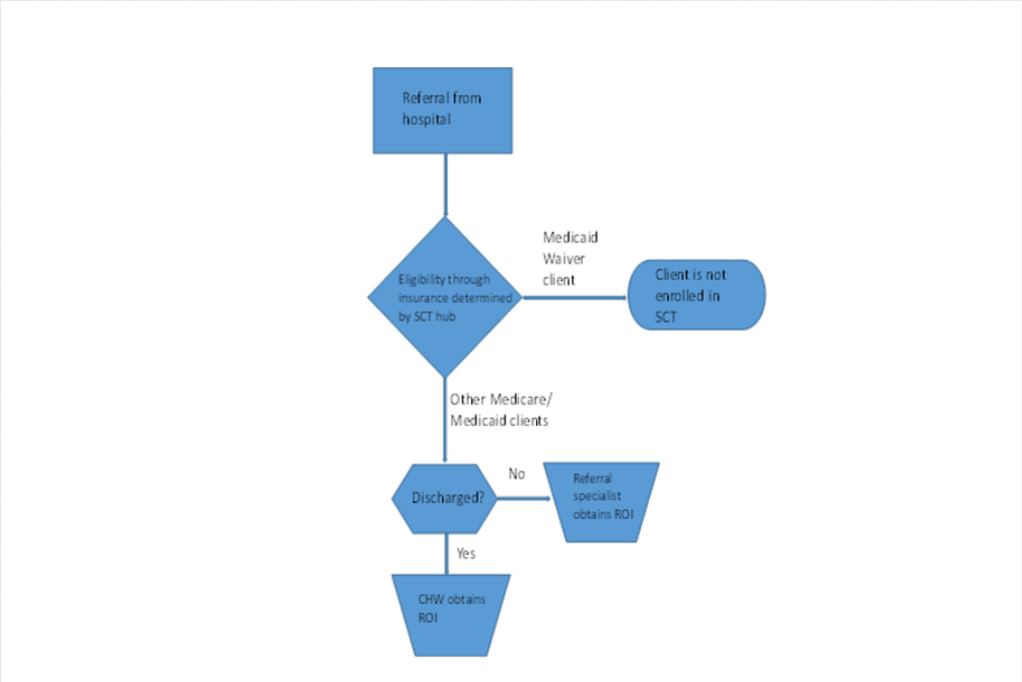
Senior Transitions – Project priorities year 1

Resulting enrollment criteria & processes



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Senior Transitions – Project priorities year 1

Initiating records of services for clients

HITECH Act of 2009 provided many billions of dollars to advance the use of electronic health records in hospitals and primary care, but not in SCTs or other sites of community care

The authors of the Pathways program (Redding & Redding, 2008) have worked to develop an electronic documentation system for the interventions that CHWs perform, but this project did not have funding assigned to use the system

Care-At-Hand ® (CAH) software program was developed by Ostrovsky to assist unlicensed personnel to collect data indicative of needs for intervention by licensed health care providers; the project P.I. had negotiated agreement to use this

CAH was not designed to document most social interventions; a spreadsheet was developed to track CHW interventions—not able to commuicate with other record systems

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Senior Transitions – Project priorities year 1

Developing effective communication patterns and processes for quality care and client safety

In addition to documentation methods described above, communication among the central project administration (Hub), CHWs, RN case managers, SNF social workers was facilitated by weekly reports, meetings

Need for ongoing monitoring of clients necessitated close work between CHW & RN; workload was consideration

- CHW workload—15 clients at once (also had to follow up on referrals to obtain consents)
- RN case manager workload—not specified; had responsibilities for clients in another project simultaneously, up to 300 clients monitored indirectly

Status of the clients may require more direct monitoring and a lower RN: client ratio (perhaps use Michigan Primary Care Transformation Project (MiPCT) guidance)

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Senior Transitions – Project priorities year 1

Work with community resources and Health Project hub

Avoiding duplication of services

Establishing organizational responsibilities in enrollment (as discussed)

Overlapping responsibilities of CHWs and SNF personnel during that period of care

Overlapping responsibilities of CHWs and home health aides (Care-At-Hand software questions)

Overlapping responsibilities of RNs in SNFs, home health and Senior Transitions

Required meetings of staff of all settings, with P.I. to resolve

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Senior Transitions – Project priorities year 1

Providing support and monitoring client status

Addressing alerts from Care-At-Hand

Number of Alerts Sent to Nurse	
Number of Completed Participants with Alerts	62
Total Number of Alerts	703
Average Number of Alerts per Person	11.52
Median Number of Alerts per Person	11
Lowest Number of Alerts for a Person	2
Highest Number of Alerts for a Person	26
Range of Alerts	24

All alerts were eventually resolved; average .19 days for resolution (SD = 1.89), outliers in resolution: 21, 44 days

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Senior Transitions – Project priorities year 1

Providing support and monitoring client status

Addressing alerts from Care-At-Hand

Alerts—Frequency and Levels

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Baseline	397	56.5	56.5	56.5
	Highly elevated	82	11.7	11.7	68.1
	Mildly elevated	160	22.8	22.8	90.9
	Moderately elevated	64	9.1	9.1	100.0
	Total	703	100.0	100.0	

Issue: CAH was in use while the clients were still in the SNFs;
Who was responsible? Legally, still under the care of the SNF.
Alert presented an ethical requirement for action by the staff of Sr. Transitions while they were not in settings that provided them the authority to intervene

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Senior Transitions – Project priorities year 1

Testing Care-At-Hand® software

Ease of use: Good, except in alert resolution

Information obtained: Individualized to client after initial assessment

RN evaluation of data: Not sufficient for full evaluation of situations

Fit with intent of Senior Transitions: Not suited to document social determinants & interventions; focused on medical needs

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Senior Transitions – Project Outcomes (preliminary)

90-Day Readmissions

Because of characteristics of readmissions, looked at 30 day rates

Preliminary information– 38 clients readmitted or visited E.R. during project

- ER visit or Readmission after 30 days, n = 15
- ER visit or Readmission before 30 days, n = 37
  - n = 14—reasons for seeking care/readmission related
  - n = 7—reasons unrelated
  - remaining—to be determined after full records available
- 1 client—timing of ER visits, hospital readmission unclear

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GENERAL IMPRESSIONS

The Senior Care Transitions project was addressing significant area of great concern for successful recovery of older adults following hospitalizations,

- One-year successes were built upon the expertise of the Muskegon Health Project, its expertise in facilitating interventions of CHWs, the collaboration of various agencies in the Muskegon community,
- They accomplished appropriate enrollment procedures; coordination of care among service providers in homes
- Areas needing further planning were:
  - determination of methods for recording CHW activities on behalf of the client;
  - addressing caseloads for RN case managers; and
  - addressing accountability issues resulting from the use of the electronic assessment program during clients' ongoing care in skilled nursing facilities.

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ROI

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ROI Interim Findings
Role of CMS

- Role of CMS

Caveat on ROI:

- We have so far been unable to access the reporting on the penalized DRGs from Mercy Health to the Centers for Medicare & Medicaid Services (CMS). Without this data the final ROI will be an incomplete measure of cost effectiveness.

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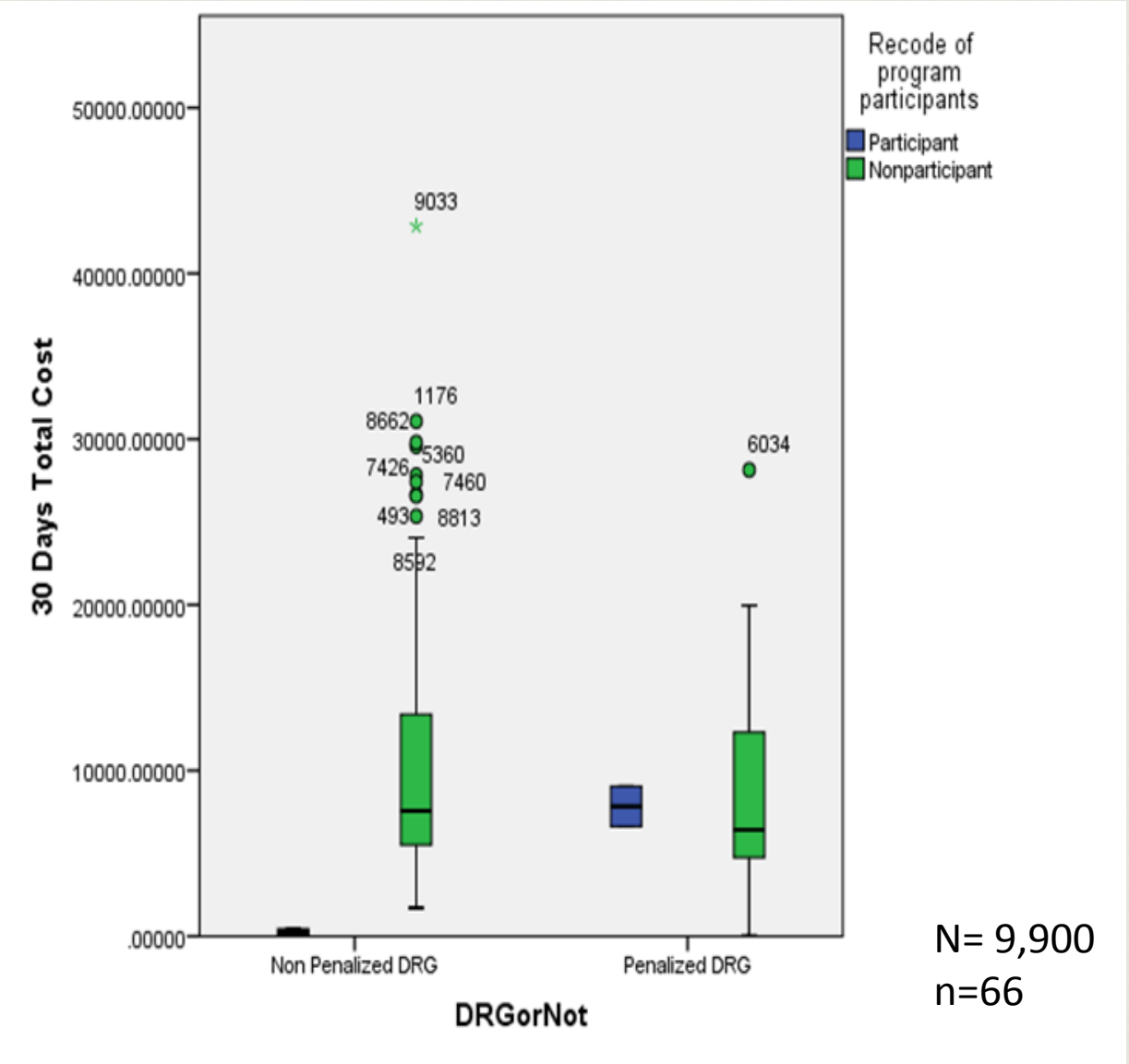
ROI Interim Findings - 2

- Eliminating "unnecessary variation."



N= 9,900
n=66

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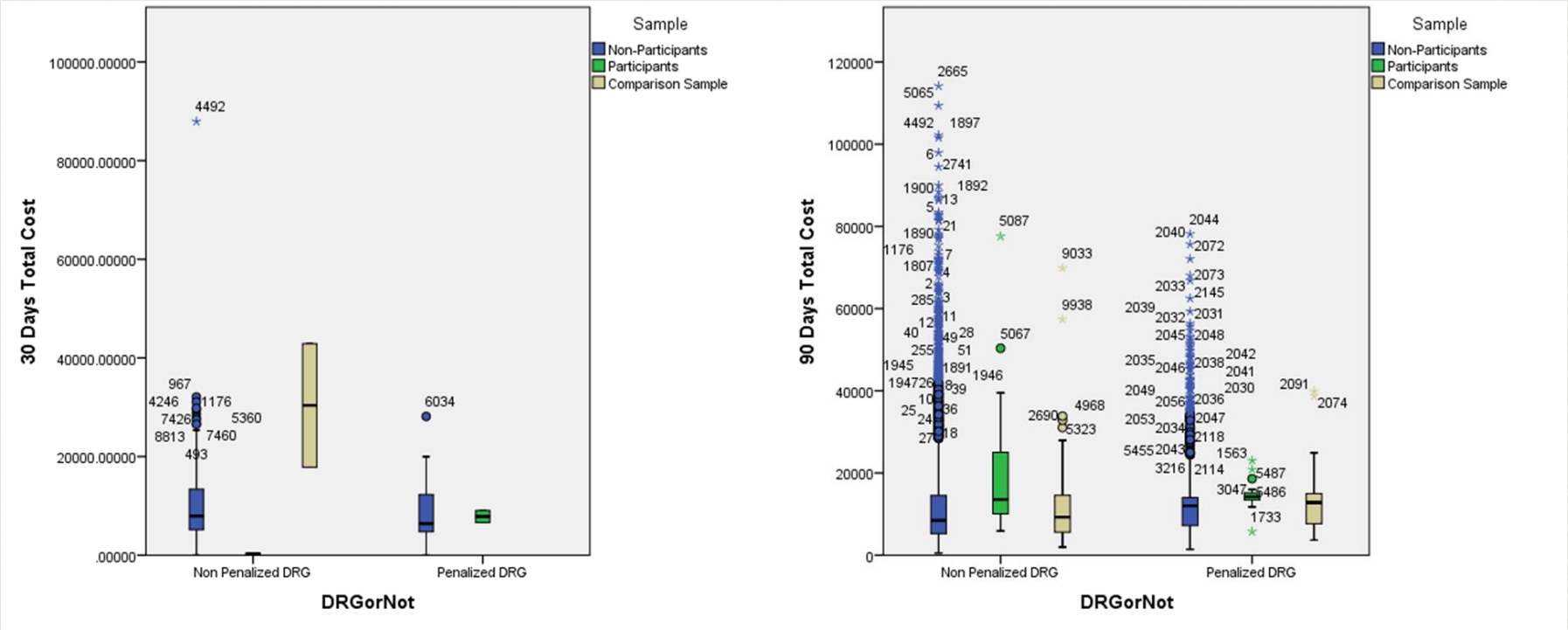
ROI Interim Findings - 3



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ROI Interim Findings - 4

- The ROI calculation for DRGs within the CMS penalty guidelines (those DRGs penalized for readmission within 30 days) – the ROI will ***likely*** be positive in the $5,000.00-$7,000.00 per participant range.

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Next Steps

Future Analyses

- Prediction model for readmission without intervention and with intervention
  - By DRG. A,R,S
- Emergency Room Visits/1,000
- 30/60/90 Day Readmissions
- Percent of Physician Visits Within 7 Days of Discharge from Skilled Nursing Facility
- Percent of Physician Visits Within 14 Days of Discharge from Skilled Nursing Facility
- 30 and 90 Day Costs (compared to historical costs for same anchor DRGS)
- Consumer Assessment of Healthcare Providers and Systems (CAHPS) Questions to Understand Whether The Transition from Hospital to Skilled Nursing Facility and Skilled Nursing Facility to Home Were Experienced Differently From The Control Group.
- Discharge location

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ROI Conclusions

- Reducing and/or eliminating “unnecessary variation” is both feasible and financially rewarding

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Questions?

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