

Resource Matching and Referral Reporting and Analytics

“Improving patient flow using an innovative analytics methodology: Looking at electronic referral data in the Toronto Central LHIN”

eHealth 2014

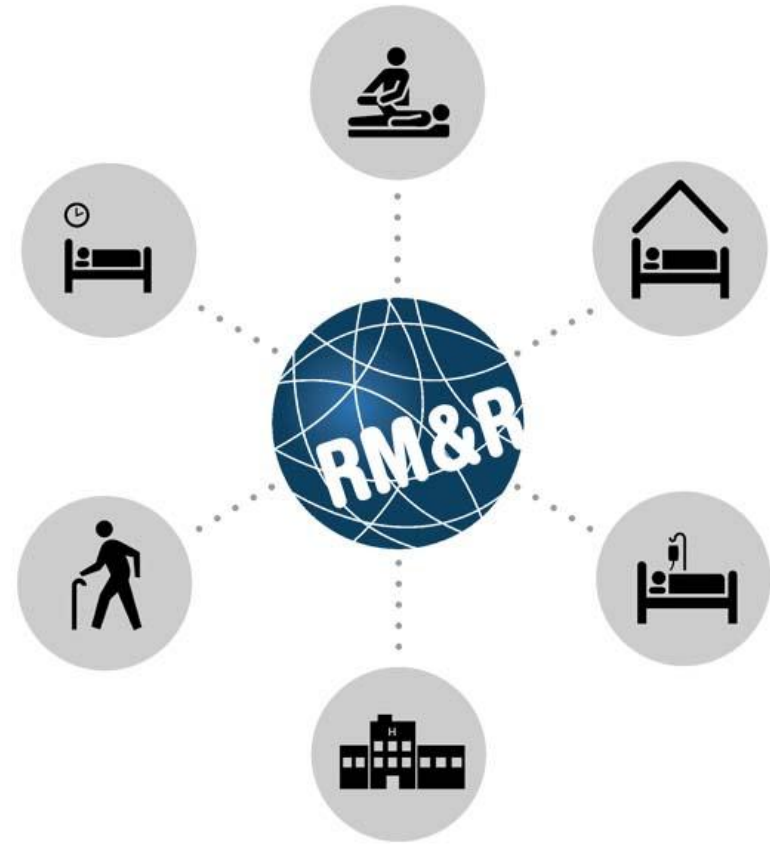
*Presenter: Behnaz Shirazi, MEng
Reporting and Analytics Lead, SIMS, UHN*

What is the Resource Matching and Referral program?

27,587 Registered Users

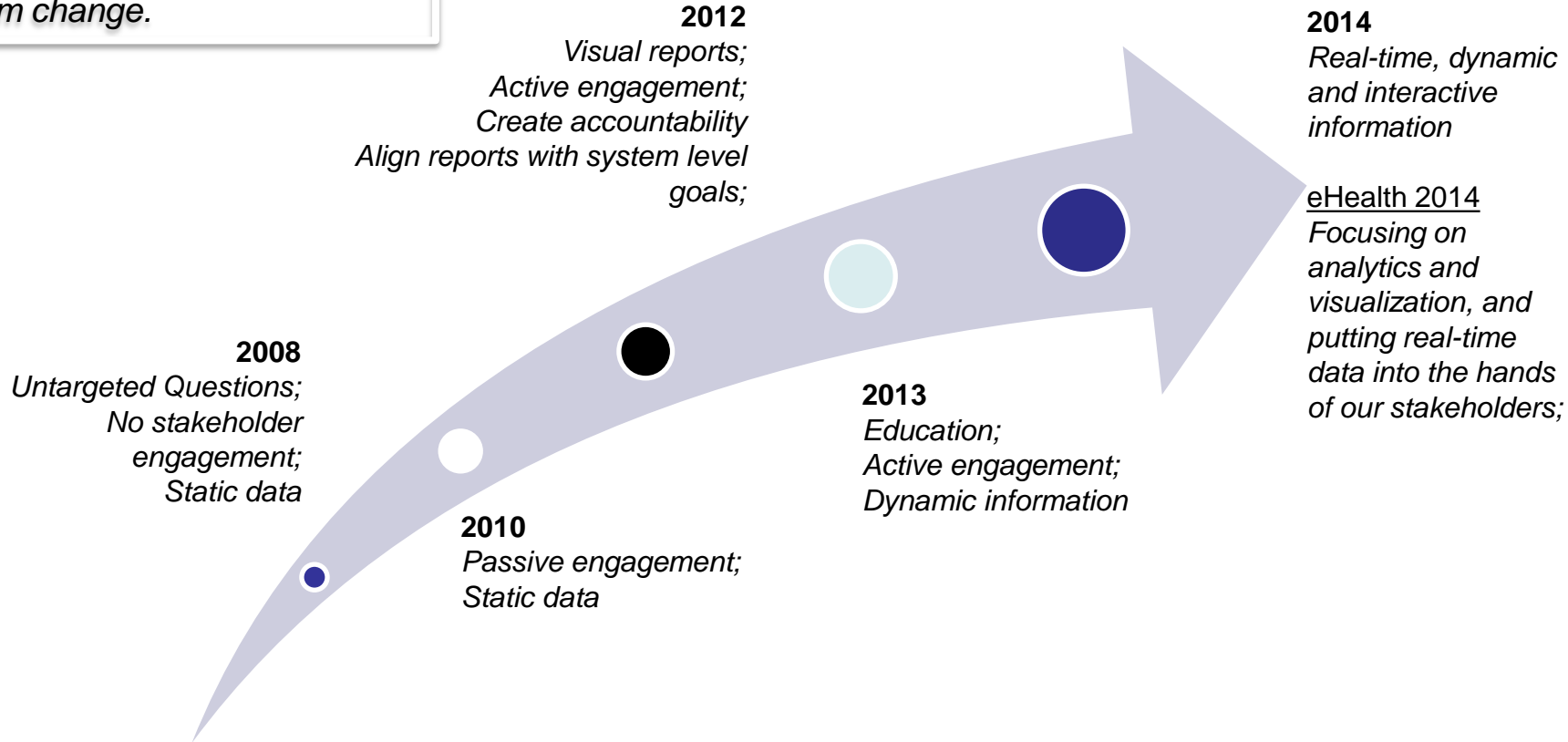
80,581 Logins a month

109,995 Clients referred



Reporting and Analytics: Evolution of Information Needs

Vision: *Translate data into information in order to create understanding, and enable system change.*



Reporting and Analytics

METHODOLOGY

Establish Analytics Methodology

Stakeholder Engagement



- Working Groups
- Program Governance

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- Program Governance
- Business Advisory Council



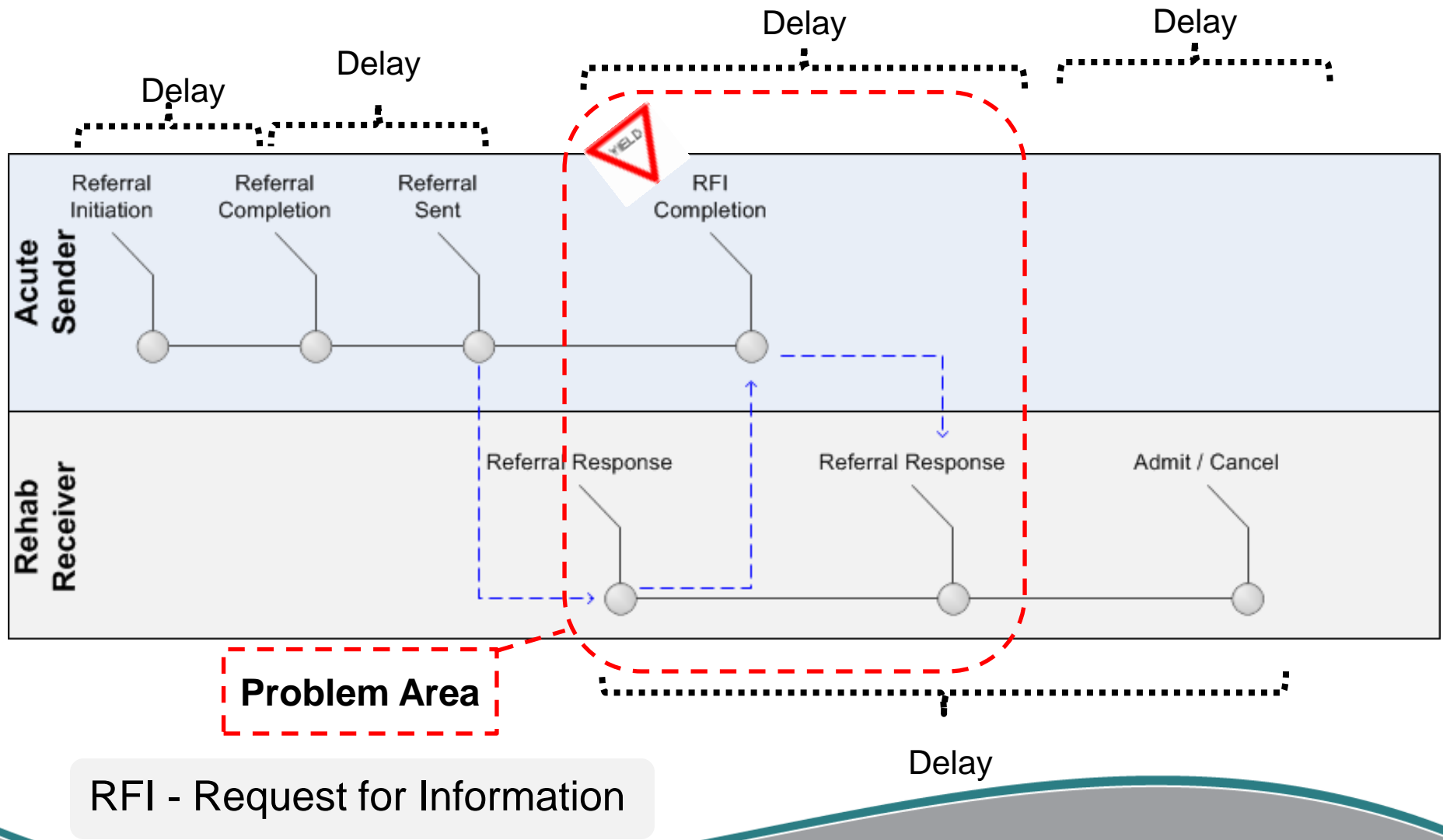
Visualization Techniques



- SAS (HTML 4 and drill down functionality)
- Excel (Interactive Dashboards)
- BI Solution (StratalQ/ORBIT)

Methodology: Problem

Acute to Rehab/Complex Continuing Care Referral Process

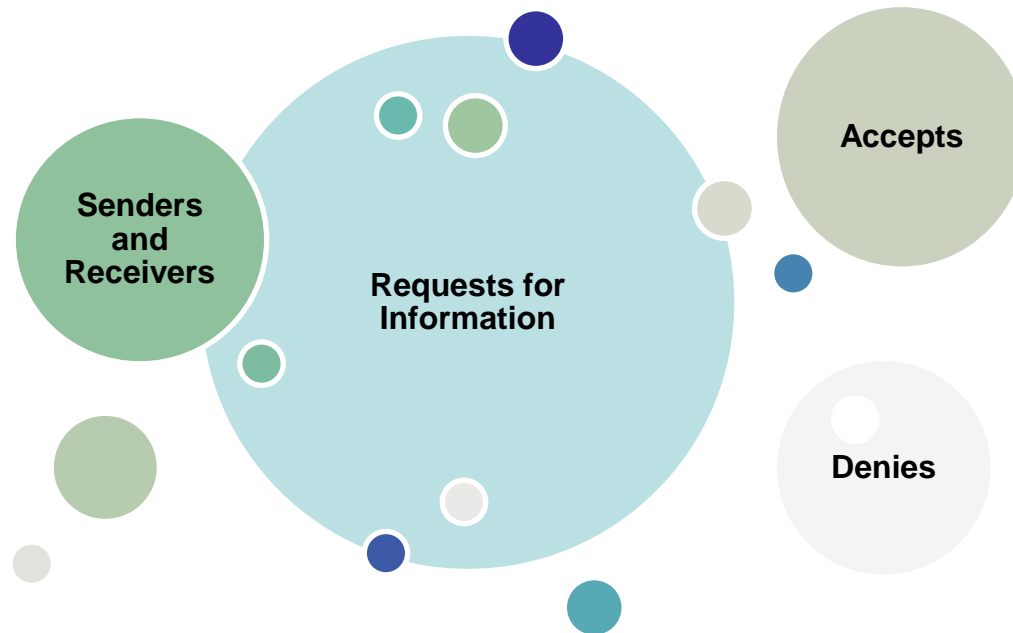


Methodology: Determine Hypothesis

Hypothesis: Patient flow is impacted by 'Requests for Information' by increasing referral processing time.



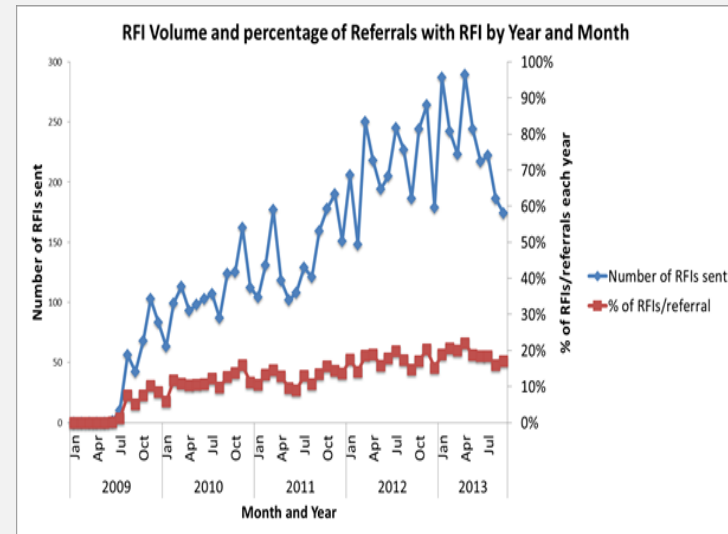
Stakeholders engaged in order to confirm hypothesis



Methodology: Prove the Effect

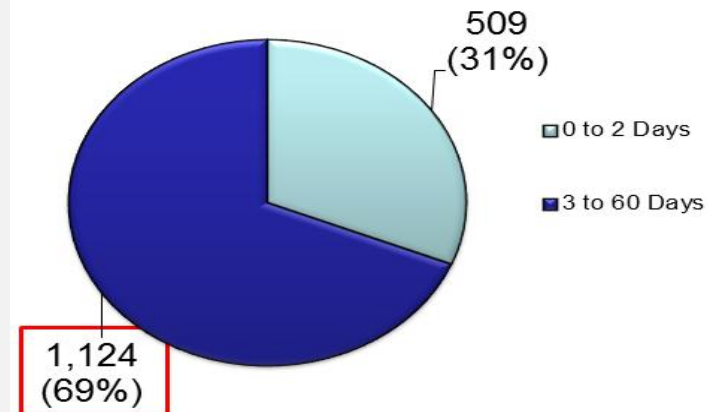
Increasing volume of RFIs over time

- Approximately 200-300 RFIs sent per month
- Average of 12% of referrals are sent back for additional information, per month



Association between RFIs and Time to make a decision

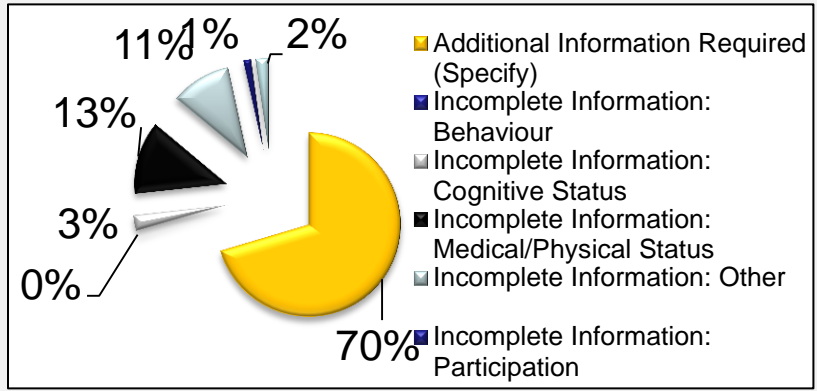
- 69% of referrals with request for additional information requires more than 2 days to make a decision



Methodology: Study the Causes

RFI reasons

- Is this because referral from doesn't have information that is needed?
- Is this because referrers are not clear about which information is needed to make a decision?



Sender and Receiver Relationships

- Longer processing times per referral observed between sender and receiver organizations
 - High Impact: More than 2 days
 - Med. Impact: 1.5 – 2 days
 - Low Impact: 1 – 1.5 days

Sending Facility	Receiving Facility							
	Receiver 1	Receiver 2	Receiver 3	Receiver 4	Receiver 5	Receiver 6	Receiver 7	Receiver 8
Sender 1	Red	Green	Blue	Red	Blue	Red	Green	Green
Sender 2	Blue	Red	Blue	Red	Blue	Blue	Red	Blue
Sender 3	Green	Red	Blue	Green	Blue	Red	Green	Green
Sender 4	Blue	Green	Blue	Red	Blue	Red	Green	Blue
Sender 5	Green	Red	Green	Green	Blue	Red	Green	Blue
Sender 6	Blue	Green	Red	Blue	Blue	Red	Green	Red
Sender 7	Red	Red	Blue	Red	Green	Blue	Green	Blue
Sender 8	Blue	Red	Blue	Green	Blue	Green	Green	Blue

Methodology: Findings and Recommendations

Business Process

Continue to establish Sender and Receiver thresholds

Technical Solutions

Use the technology to improve data capture and data quality

Refresh Education

Provide training and review best practices with senders and receivers



Stakeholders engaged to discuss recommendations

Methodology: Interventions



Implemented
Technical Changes



Increased awareness
of Key Performance
Indicators



Developed new
Quality Indicators



Interventions based on stakeholder needs

Testimonial

- Analysis of the key indicators that impacted decision time had input from many perspectives
- The data and visualizations from all organizations made it clear that RFIs significantly impacted decision time.



“An improvement plan was put into place, and the percent of referrals that required requests for information has significantly decreased. The data from the system level report, Strata IQ and ORBIT was instrumental in tracking [West Park’s] progress and continues to be shared and monitored at all levels of the organization.”

*Laura Forma, BSc. OT, OT Reg (ONT)
Director, Program Operations*



Conclusion

- By establishing and following a methodology, we have utilized available data to us to create information, implement technical and business changes, and improve system utilization
- Real-time data is readily available to our stakeholders, providing them with the ability to visualize referral data
 - Real-time RM&R data and information can be used to address gaps and identify delays in patient flow
- Changes have already been implemented in the application, and within the business, to improve patient flow.
 - Further recommendations have been made and we are currently awaiting the decision as to the next round of action

THANK YOU

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