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Introduction & Background

- The cost of over-testing in health care is not sustainable. Choosing Wisely Canada has made a recommendation to ***not routinely test free thyroid hormone levels for screening or adjusting medication for hypothyroidism.***
- As the people doing the work at the front-line, we also have a responsibility to identify where the greatest opportunity for *value* is, allowing reallocation of funds to areas of most need.
- Our shared aim is to eliminate waste caused by unnecessary testing costs and to ultimately improve the overall patient experience.

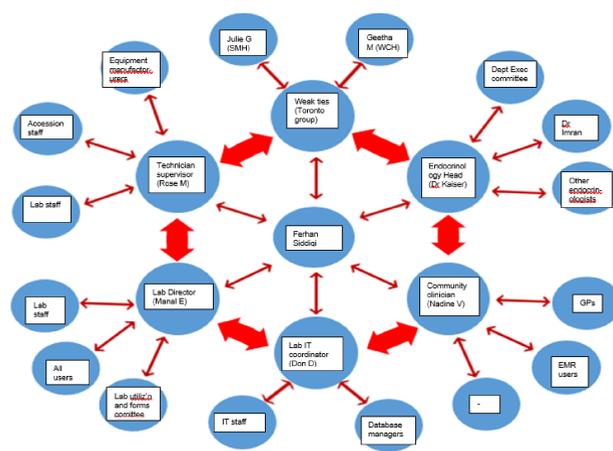
Outcomes

- We successfully organized a group of interconnected professionals and staff to engage them in a common aim based on shared values and will help to build capacity for leadership in others and individual growth.
- We plan to capitalize on the strengths and values of this newly developed “super-team” to reach our stated goal to reduce unnecessary free thyroid hormone testing.
Next steps:
- Refine our testing algorithm for ordering by clinicians and entry by lab personnel.
- Conduct PDSA cycles beginning in the Central Zone to implement the new lab algorithm.

Team

- The leadership structure was developed following one-to-one meetings and identification of specific skills and assets that each member contributes toward the project aim:
- Endocrinologist (Ferhan S.)
- Lab Director (Manal E.)
- Technician Supervisor (Rose-Marie M.)
- IT Analyst (Don D.)
- Community Endocrinologist Rep (Nadine V.)
- Stakeholders: Clinicians, patients, endocrinologists, lab personnel, IT, administrators, peripheral lab facilities.

Snowflake Diagram



Organizing Sentence

- We are organizing clinicians, laboratory technicians, administrators, and IT analysts to reduce unnecessary free thyroid hormone testing to less than 5% of all tests performed by implementing a laboratory-based reflex free hormone testing algorithm because this will significantly reduce health care costs over \$200,000 per year in the Central Zone Health Authority by April 2019.**

Map of Actors and Assets



Project Timeline and Events

- January 2018:** Initial email exchange and meeting with lab director to discuss issue.
- February 2018:** Arranged team meeting with endocrinologist, lab director and IT staff to gather baseline utilization data and feasibility for lab equipment to implement reflex testing.
- March 2018:** Developed organizing strategy to build interconnected leadership structure.
- April 2018:** Community presentation (N.V.) at speaker event to 54 primary care physicians. Mobilized lab personnel by presenting “story of us” and baseline testing data and costs.



Projected timeline:

- Sept-Dec 2018:** Develop and implement new reflex algorithm for the Central Zone.
- February 2019:** Reduce unnecessary free hormone testing to less than 5% of all tests performed (measurable aim).
- March-April 2019:** Calculate cost savings (\$) with new system. Engage with stakeholders to measure satisfaction post-reflex system and revise algorithm as necessary.
- 2019-2021:** Scale up improved reflex system to all laboratory facilities in Nova Scotia.

Strategy and Tactics

- If we organize a group of clinicians and administrators to create well-designed laboratory parameters that reduce unnecessary free thyroid hormone testing, then fewer unnecessary tests will be done and health care system costs will be significantly reduced.
- We successfully organized by conducting 3-4 one-to-one meetings, scheduling a leadership meeting, a follow-up personnel meeting, and targeted outreach to primary care physicians at a community speaker event to reach all levels and stakeholders impacted by our change.

Challenges

- Timeline:** We faced the challenge of the time that it takes from concept, to convening of the leadership team, and then to sharing the project with all stakeholders. This requires coordination of many individuals across different fields and areas of expertise.
- Opposition:** Some individuals expressed their concerns and doubts about these changes as they displace ordering autonomy in favor of clinical appropriateness and reducing waste.
- We plan to overcome these challenges by choosing effectiveness over efficiency and engaging in shared decision-making.

Key Learnings

- Our leadership and organizing framework led to an engaged group of individuals sharing an aim based on mutual values and commitment.
- 1. Data is worth a thousand words** – our audit of baseline costs from unnecessary use of free thyroid hormone testing rallied almost universal commitment across all departments/staff.
- 2. Real responsibility leads to sustained commitment and leadership in others** – providing an opportunity for growth within individuals unlocks sources of untapped potential and elevates progress toward the aim.

Measures

Process Measures:

- # of one-to-one and team meetings
- # of primary care physicians reached during community outreach and education

Outcome Measures:

- % of unnecessary free thyroid hormone testing performed after implementation of lab algorithm

Balancing Measures:

- Ordering physician, staff and patient satisfaction following implementation of lab algorithm

Baseline data

Between July – December 2017:

- 79,404 normal TSH results
- 30,169 unnecessary free T4 tests
- 1,738 unnecessary free T3 tests

Estimated cost savings

- Cost per FT4 test = \$4.42
- Potential cost savings = \$221,000 annually within the Central Zone Health Authority

Contact Us

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- Links: Choosing Wisely Canada <https://choosingwiselycanada.org/>; Nova Scotia Health Authority <http://nshealth.ca/>
- This project was completed as part of the *Leadership and Organizing for Change* (IHI Open School). Interested in joining the IHI Open School Change Agent Network? Learn more at www.ihio.org/ICAN and contact the Open School at openschool@ihio.org to get started.