# Managing Patient Roster Accuracy in Electronic Medical Records to Improve Care

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# Presenter Disclosure

**Presenters:** Marjan Moeinedin and Abel Gebreyesus

**Relationships with Commercial Interests:**

➢ We have no actual or potential conflict of interest in relation to this work.

**Affiliation / Financial Interest:**

➢ We have not received any financial support from any organization with respect to this work.

# Objectives

- Outline the benefits of having accurate data on patient roster status

- Discuss the patient roster clean up process and improvement within two Family Health Teams (North York and Queen Square)

# Background

- Electronic Medical Records (EMRs) are valuable for improving quality of health care services
  - EMR data integrity is key to trusting the information needed to make informed decisions
  - EMR data quality may not be optimal

**Opportunity for Improvement:**

- We don't know if roster status is **accurate** in our EMRs. "Is this patient rostered?"
- We don't know if all **eligible** patients were offered the **option to roster.**

# **Definition**

Patient Rostering:

A formal patient **registration** with a family physician or team establishing a dual **relationship** that facilitates:

- continuity of care from patients
- accountability from physicians/team

Source: Collage of Family Medicine of Canada (2012). *Best Advice: Patient Rostering in Family Practice*. Retrieved from
http://www.cfpc.ca/best_advice_patient_rostering_family_practice/

# Improving EMR Roster Accuracy
# at QSFHT & NYFHT

In order to support a robust roster system, we first focus on improving roster accuracy in EMRs:

1) Roster eligible patients; **EMR** roster status must match roster status in **Ministry** records

2) De-Roster patients that are deceased & inactive

# Why should We Support Roster Management?

**Better Access**

- Define panel size
- Timely access to appointments
- Access to all care providers in the enrolling group
- Access to comprehensive range of services
- After hour clinics and advisory phone services

**Better Care**

- Physician/team patient relationship
- Patient adherence to care
- Chronic disease management
- Clinical outcomes
- Information sharing and access to information needed for referrals

**Improved FHT Accountability**

- Performance indicator for the FHT
- Engage physicians

# A Physician Experience!

"We need to **know who our patients are**.  …how many of them have diabetes, what proportion of children are obese, ….  If we don't know **which patients are rostered**, …we **can't** accurately monitor and **manage the quality of care** we provide.

Knowing who our patients are is **fundamental to providing better care.**"

Dr. Michelle Greiver, Family Physician

North York Family Health Team

# PDSA - Framework

## Plan

**What is going on?**

- Define the problem
- Understand the system
- Set objective
- Plan to carryout (Who, what, where, when)
- Plan for data collection

## Do

**How can it be done?**

- Execute the plan
- Document observations and processes
- Analyze the data

## Study

**What to expect?**

- Complete the analysis
- Examine the results

## ACT

**What changes are to be made?**

- Reflect on plan and outcomes (adopt, reject or modify)
- Communicate the results
- Plan for next cycle

Act → Plan

Study ← Do

# Stage 1: Plan

- **Objective:**
  - NYFHT: **Reduce patient roster discrepancies** between EMR and Ministry roster lists to 5% or less by end of August 2015
  - QSFHT: **Decrease the gap** between EMR patient rostered and Ministry lists by 3-5% (annually) towards 0% gap (clean rostered list) and maintain it

- **Prediction:**
  - The discrepancies in NYFHT patient rostering is maintained or reduced to 5% or less in 2015

- **Assemble a team:**
  - Select team members

- **Who/What/Where/When:**
  - Who: Physicians/Leaders/Admin Assistants/clerks/ QUDSS/
  - What: update the patient roster lists for individual FHT physicians
  - Where: North York FHT / Queen Square FHT
  - When: April – August 2015

- **Measures:**
  - Total rostered Patients in EMR
  - Current performance
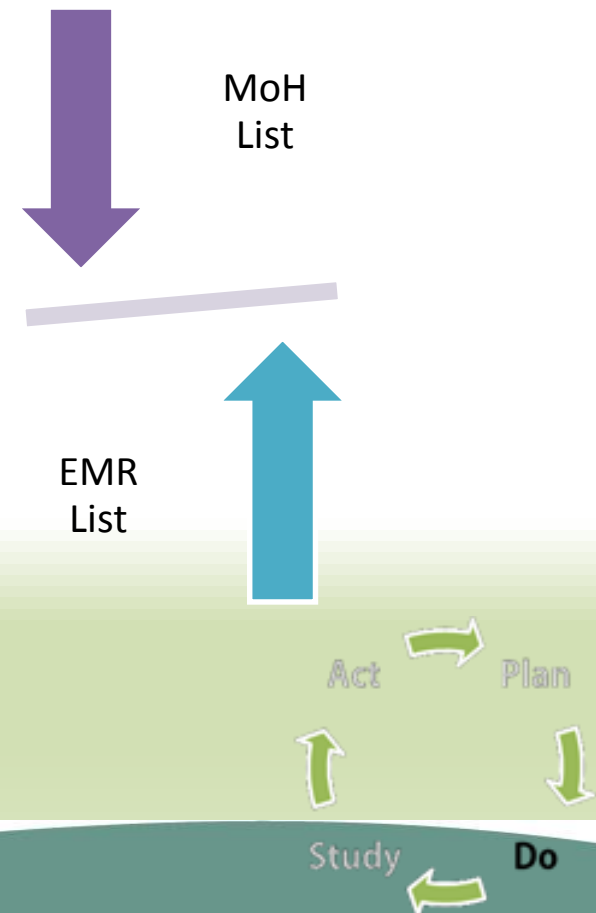  - % of discrepancies corrected
  - # of roster invitation letters sent

# Stage 2: Do
# Process Implementation

**Step 1: (Data Manager/QIDSS)**

- ✓ Receive the list from the Ministry

- ✓ Query patient list from EMR

- ✓ Develop a formula to compare the two lists

- ✓ Create a list per physician

- ✓ Obtain physician's confirmation

- ✓ share with Admin/Clerk staff

MoH List

EMR List

Act   Plan

Study   **Do**

# Stage 2: Process Implementation (cont'd)

## Step 2: (Admin/Clerk)

- **Compare** the Ministry roster list to the EMR list and **update** the EMR by rostering/ de-rostering accordingly

  **De-roster deceased**; **inactivate** patients not rostered and **not seen** for 3 years

- Give their list of unrostered Active patients to **physicians**.  Ask them to **select** patients for roster **invitation** mailing and return the list

- **Mail roster invitation**



Act  Plan

Study  Do

# Stage 3: Study
# Analyze the Results & Summarize

## Step 3: (Data Manager/QIDSS)

- Analyze the results
  - Was there an improvement in patient rostering?
  - What were the lessons learned?
  - Any unintended consequences?

# Stage 3: NYFHT Roster Comparison 2011-2015

| Year | Total Rostered Patients in EMR | # of Updated Discrepancies | % of Updated Discrepancies | Invitation Letters Mailed |
|------|-------------------------------|---------------------------|---------------------------|--------------------------|
| 2011 | 58,933 | 7,767 | 13% | - |
| 2012 | 62,850 | 3,398 | 5% | 1,758 |
| 2013 | 64,733 | 2,398 | 4% | 1,173 |
| 2014 | 66,200 | 3,864 | 6% | 1,789 |
| 2015 | 66,085 | 2,837 | 4% | 1,293 |

# Stage 3: NYFHT Comparison Run Chart 2011-2015



NYFHT - Patient Roster Correction
Year 2011-2015
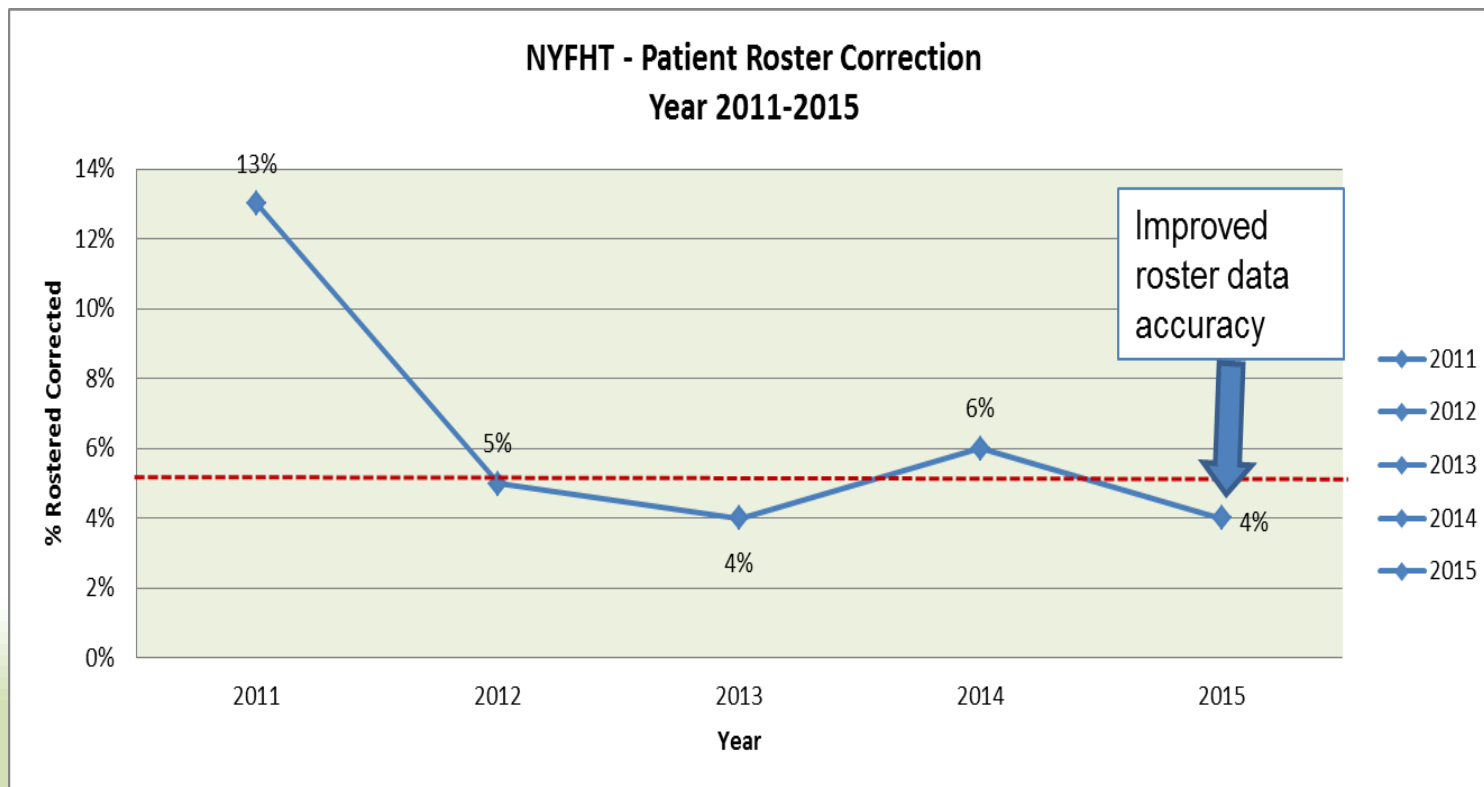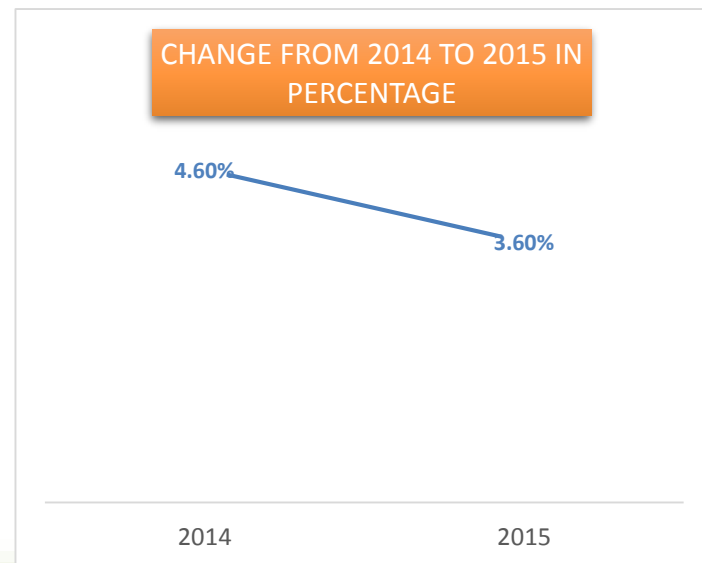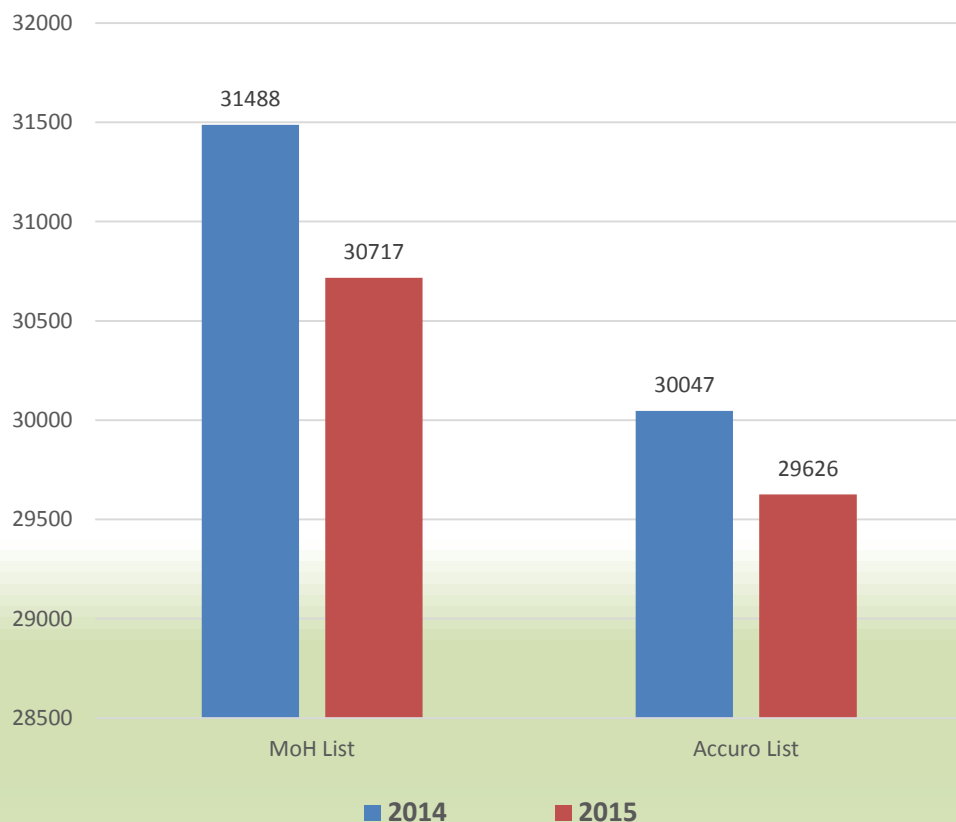
# **Stage 3:** Lessons Learned

- Challenges:
  - ➢ Obtain physicians' agreement to participate
  - ➢ Ensure the report forwarded by the Ministry is accurate!
  - ➢ Be aware of data discrepancies:
    - ✓ Ministry data:
      - Different rostering physician than in the EMR
      - Different date of birth than in the EMR
    - ✓ EMR data:
      - Missing health card numbers

# Stage 4: Act

## Reflect & Celebrate Improvements

- Reflected on our plan and outcomes

  ➢ Standardized the successful processes

  ➢ Modified the areas that further development was needed

- Communicated the results and celebrated the success with the physicians/team

- Plan for another cycle

  ➢ Will repeat the cycle in April 2016

Act    Plan

Study    Do

# Acknowledgment

The success of the project was due to the valuable work of the following team members:

- Physician Leader/Champion

- Data Manager

- Office Managers/ Admin Staff

- Summer Students/Data Clerks

- FHT Physicians

- FHT Leadership

# **Reference Manual**

Patient Enrolment/Consent Process Manual:


http://www.health.gov.on.ca/english/providers/pub/primarycare/proces_enrolment/proces_enrolment.pdf