Quality Improvement
Queen's Family Health Team, Kingston Ontario
February 2012

"Don't pave the goat paths". Some highlight from our journey of Quality Improvement…

Does the thought of 'quality improvement' in your practice overwhelm you? Perhaps you don't know where to start or it seems that there is too much to be done and everybody is already too busy? We can relate! We are excited to share some 'successes' from the quality improvement journey our academic family health team undertook in 2008. We started with some site visits to see what other FHT were doing, get ideas and consider what would work for us. We ran a seven part monthly "Clinical Excellence" workshop series which allowed us to collectively establish our shared priorities: standardization, collaboration, and proactively providing care to *all* of our patients (and not just the ones that came in for office visits). These evolved into our QFHT Quality Plan and a framework within which to continue QI and patient safety initiatives. Our favourite lesson learned was "don't pave the goat path" (poor analog processes should not be replicated electronically!)

We are an academic FHT with 22 physicians and 30 plus nurses, allied health and clerical staff. We have about 12,700 patients. The challenging piece to maintain patient safety and work on quality improvement for us has been the throughput of our wonderful residents. We have 50+ newly graduated physician residents rotating through our clinic every year. This adds in much complexity to our office processes to make sure that our patients receive safe and high quality care.

We now have a framework within which to proceed. We have weekly clinical management 'huddles' to address at emerging needs, an overseeing muti-disciplinary quality committee called the "Better Innovations Group", ("BIG") and other smaller committees such as Quality Assurance, Pharmacy and Therapeutics, Medical Directives, Immunizations, Diabetes, and discipline dedicated meetings for clerical, nursing and such. Some other forces that we have found to be positive catalysts? To name a few: having an EMR that is relatively responsive to making required programming changes (we use OSCAR), having a Data Analyst to continually tell us 'where we are' and evolving trends, and 'finding' additional manpower with students from nursing, pharmacy, medical assistants and summer students. Having fresh eyes, eager initiative and new approaches have taken us to a higher level.

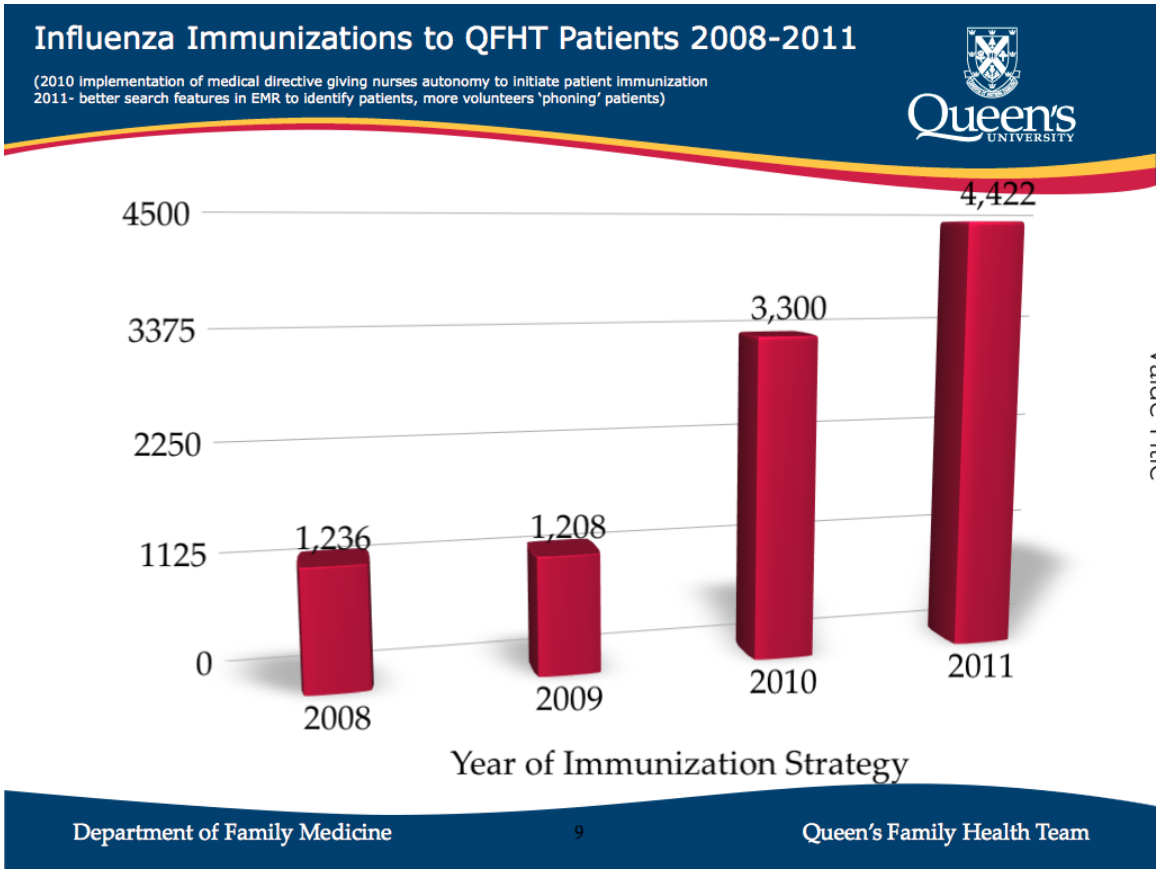
You may have heard of the Institute of Medicine's framework Domains of Quality Improvement? We adopted them as a matrix within which to frame our QFHT Quality Plan:

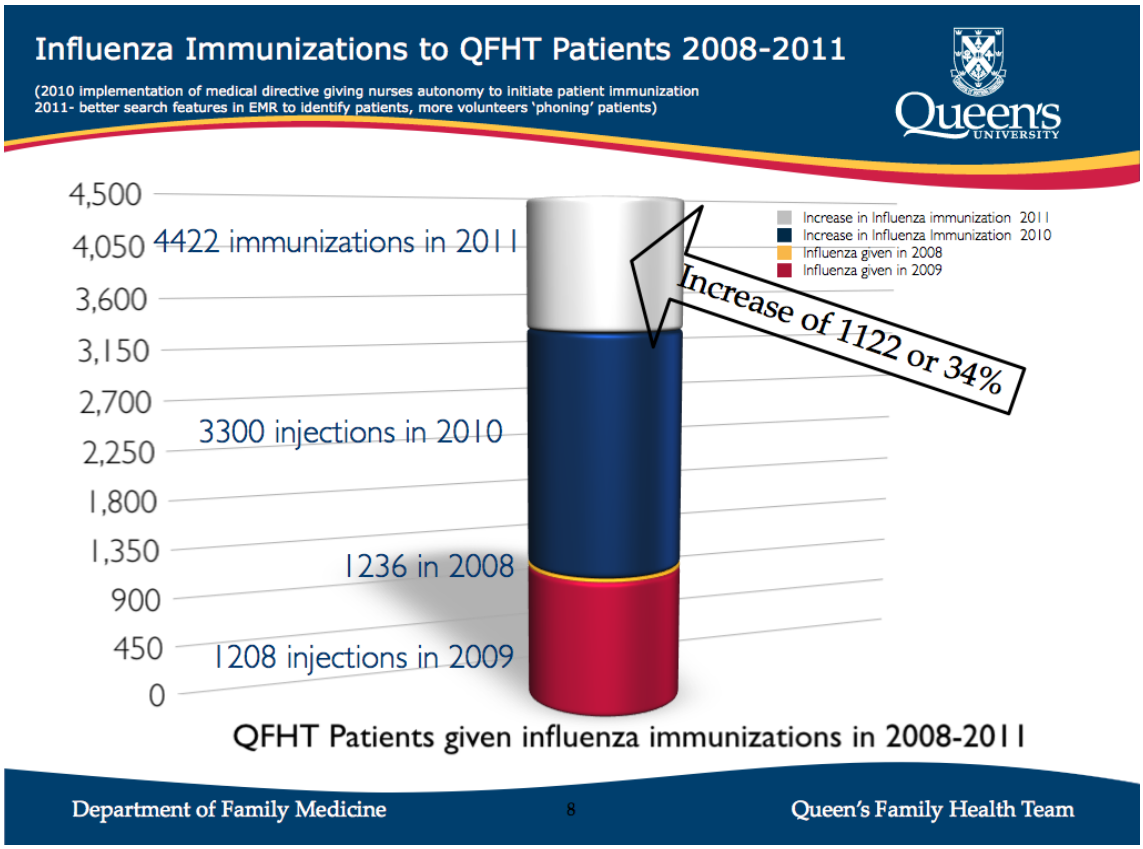
1. **Safety**; *patients have a right to a system that strives to protect them from medical error*
2. **Effectiveness**; *as healthcare providers, it is our obligation to provide the right care at the right time to the right person*
3. **Patient-centredness**; *patients deserve care that is respectful of, and responsive to, their individual needs, preferences and values*
4. **Timeliness**; *both patients and clinicians deserve a system that strives to reduce waits and potentially harmful delays*
5. **Equity**; *care of equal quality, regardless of personal characteristics*
6. **Efficiency**; *patients, staff and clinicians deserve a clinical work environment that strives to avoid waste*.

Fast forward to 2012 to some key outcomes of our Quality Improvement journey that are contained in our QFHT Quality Plan. We have many goals established within our Quality Plan and they are various stages of implementation but we are pleased to share the following highlights with you:

1. INFLUENZA IMMUNIZATION PROGRAM (part of MOHLTC 5 preventive care targets)

   In 2010 we were in a position to change many processes that we thought we not optimizing our impact of immunization our patients for seasonal influenza. The past 2 years have been quite successful. Take a look:





This is what we found to be helpful to improve our numbers:

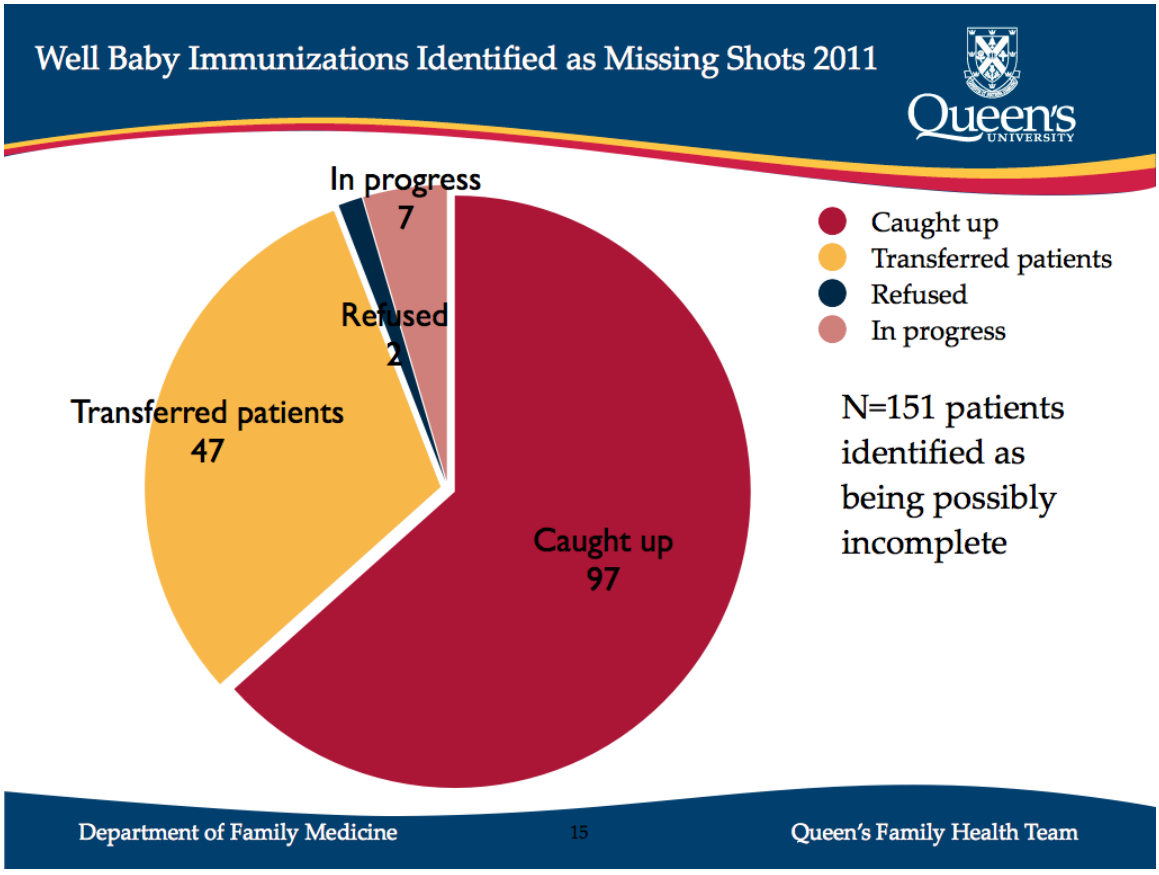
- Trained RPNs to give injections (thus doubled the 'supply' of who could give injections)
- Adopted a **'no barrier'** approach to immunizations so that patients could get their shot in:
    - Dedicated clinics,
    - Anytime that they dropped in, including After Hours Clinic
    - Flu-shot house-calls,
    - Opportunistic capture any time they were in the office
    - 5 flu shot clinics capturing various time slots- weekend, PA day, evening, weekday
    - Wrote medical directives such that nurses would not have to await an order.
- We 'found' extra staff to work on this (nursing students to make phone calls)
- Post card and email send outs **to all** of our patients
- Improved EMR searches to identify particular high risk patients needing shots
- "Staff Blitz"- immunizing everyone in QFHT with roving 'coffee and injection' "desk-calls". We didn't want to be a vector of influenza to our patients AND to set a good example.
- Improved waiting room signage and posters throughout the clinic and exam rooms.
- Improved tracking and recording if patients received their flu-shot elsewhere or declined it.

Overall, our 2011-12 season was a success resulting in:

- 37% (4422) of all QFHT patients were immunized. (Our goal was 4000)
- **80% of our patients >65 years of age were immunized thus reaching the MOHLTC benchmark!**
- 66 nurse run flu shot house calls
- 80% of our staff were immunization Our goal was to immunize 4,000 patients in 2011 – mission accomplished!

2. PEDIATRIC CATCH-UP IMMUNIZATION PROGRAM (part of MOHLTC 5 preventive care targets)

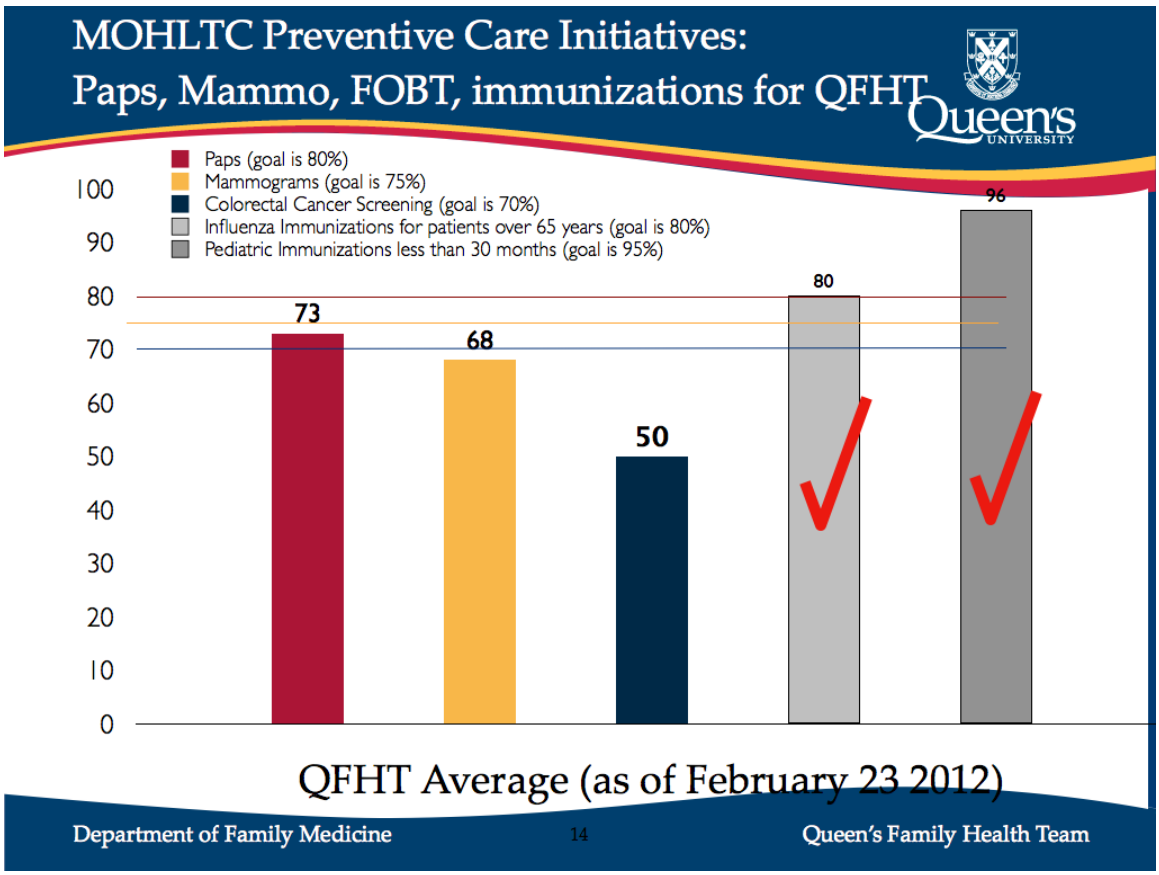
While we paying attention to influenza, we also targeted pediatric immunizations. We had a hunch that some of our babies had not received all of their recommended immunizations. We were right! From September to February 2011-12 we identified 151 children who were possibly 'behind' in their immunizations. This number astonished us! How could we have 'missed' this many babies? We looked at these closely and found that of the 151 patients, 97 we successfully completed their immunizations, 47 were identified as having transferred out of our practice, 2 refused and 7 are still in progress. This was an extremely helpful exercise for us to undertake. We have now hit 96% of our eligible patients have been completely immunized by the age of 30 months. This is the second MOHLTC preventative care benchmark. We have next earmarked looking at our 4-6 year old patients and teens.



So far we have reported on influenza for patients over 65 and immunizations for patients under 30 months. As you know, the MOHLTC wants us to reach benchmarks in 3 other preventative health interventions. We have as one of our quality imrovement goals, to hit the highest benchmark for each of the 5 preventative care interventions. We have reached this so far with our immunizations. How about the rest?

3. PAP SMEAR, MAMMOGRAM AND FOBT SCREENING PROGRAM *(part of MOHLTC 5 preventive care targets)*

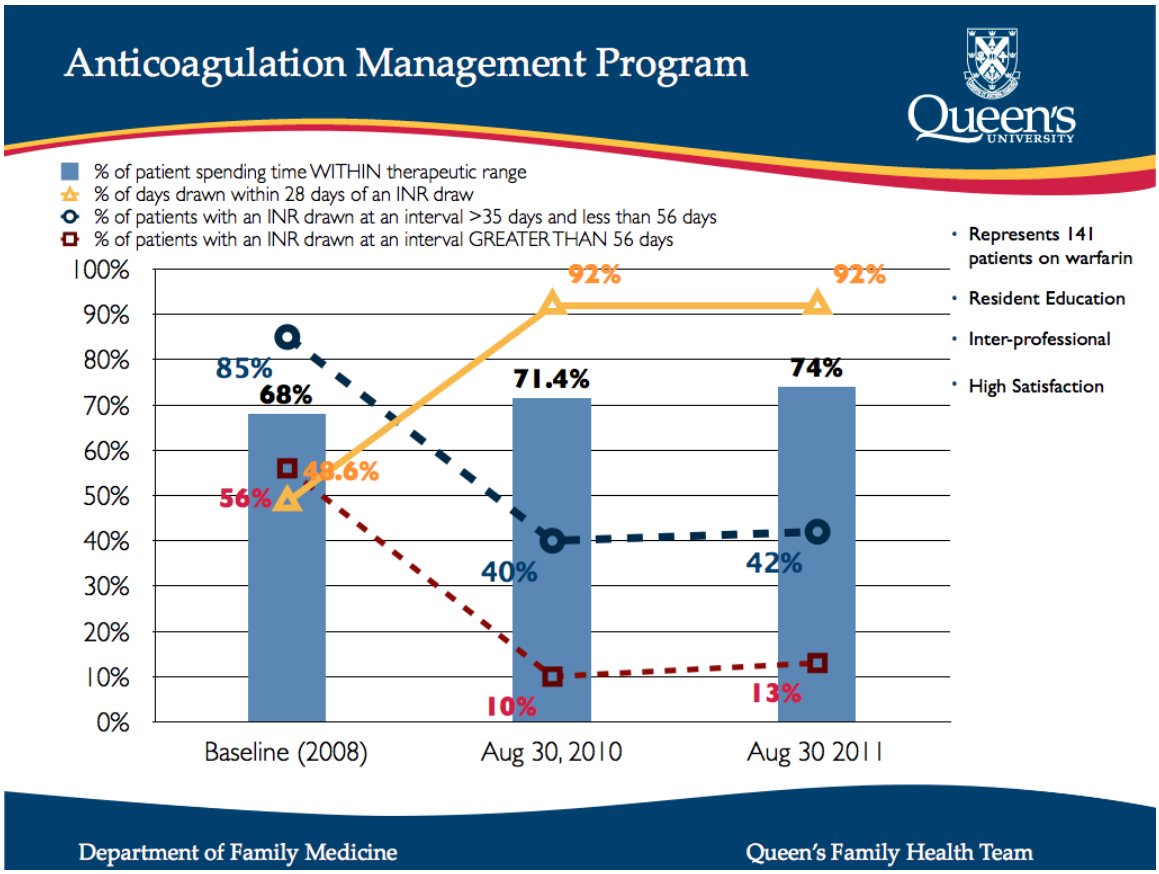
As you can see from this graphic, we have one month left to close the gap on the last three initiatives. This represents the QFHT average for where we are at for hitting the preventative benchmarks for pap smears, mammograms and FOBT screening. Similar to the previous initiatives we have found that improving these numbers requires creative multi-disciplinary approaches, certainly aided with a data analyst's input and an EMR that is able to generate the reports that one needs for benchmarking and identifying which patients are still needing interventions or exclusions identified. We are not sure if we are going to 'get to goal' for these remaining preventive care benchmarks by March 31st, but we are will situated to reach our overall goal by 2013.



4. ANTICOAGULATION MANAGEMENT PROGRAM

As part of the Timeliness & Equity dimensions, the Anti-Coagulation Management program (AMP) was developed in 2009 with goals to have all eligible patients enrolled in the Pharmacist/RN led program; to increase the %age of patients who have their blood drawn

within 28 days; and to improve the patients' time within therapeutic range (TTR). Our QFHT Pharmacist and an RN completed the Anti-Coagulation Management certificate course from the University of Waterloo in June 2009. Prior to this program, patients were managed by their physician, with high inter-physician variability for Time in Therapeutic Range across the QFHT. By October of 2011, 92% of the 143 patients followed by the AMP had their INRs drawn within 28 days. This compares to 2008 indicated that only 56% of patients had an INR blood draw within 28 days. Moreover, 74% of our patients are spending their time in therapeutic range with exceeds the gold standard benchmark of 70% and is a 6% improvement since 2008. Perhaps one of the most important feedback loops was a patient satisfaction survey conducted in 2010. Patients report that the quick in and out service (appointments are booked every 5 minutes) provided by our allied health team saves them hours waiting in a lab, and the resultant telephone tag which would previously occur with the physician. Our Pharmacist and RN see some of our most vulnerable patients once per month, identifying other health issues (eg depression, dementia, heart failure), which are quickly referred to the physician. Moreover, at these quick point of care INR management visits vaccinations are updated, smoking status is recorded, and other opportunistic interventions. The physician appointments 'saved' each year through the use of allied health professionals in the FHT is estimated at 1840 visits.



5. OTHER FOUNDATION WORK:

The last area of that we would like to highlight is around foundation work. We have learned that most of these initiatives take much longer than we first estimate AND that we have to back up, back up, and back up the starting point some more. 2 examples of this around diabetes care and smoking cessation. With respect to diabetes care in 2009 we were creatively and energetically sketching out what we wanted our diabetes program to look like. Would we have group visits? We can make cook books, have walking programs, auto recalling of appointments with labs in hand, auto-referrals for eye exams, grocery shopping sessions etc. Then it dawned on us that we had overlooked a very important first step—knowing who our diabetics are! WHO would we refer to these programs? Just the diabetics who we knew off the top of our heads? What about the diabetics who never come in or the diabetics that we have forgotten about? What about women who had diabetes in pregnancy or patients who had indeterminate HBA1Cs? What about the diabetic whose chart only list diabetes deep within their SOAP notes meaning that our regular data pulls would miss them. How could we calculate any baseline benchmarking without being able to definitively identify a complete cohort of diabetic patients? Similar to the experience that we had with our pediatric immunization program when we were shocked to discover that we were unaware of so many patients who had left our practice or were possibly under-vaccinated, we knew that we were missing caring for some of our diabetes. First principles for us? IDENTIFY our diabetics. This took a surprising 18 months to do! We had to search data-bases of patients labeled as diabetics. We also searched by looking for abnormal labs or medications that indicated a patient might have diabetes. We also compared against the MOHTLC lists which rely on billing and lab data and another external source called CPCSSN. Using these different 'lists' our number of patients with diabetes ranged from 500 to 1200+. We then developed 'approximate' lists and circulated them to the home team nurses, clerks and physicians to confirm whether or not patients were diabetics or not. Lastly, we had a summer student activate appropriate ICD-9 codes for 'Diabetes' in the diagnosis registries of our EMR. This was the definitive step that allows us to move forward with all of our future programming. We now know with confidence that we have 875 diabetics! We have since be working on medical directives and office policies that allow for auto-recalling of patients and strategic deployment of focused interventions, perhaps for influenza immunization as well as undertaking baseline benchmarking of our HBA1c rates, number of days since last appointment and other important diabetes metrics.

Similarly, we have undertaken a smoking cessation program. In addition to offering this our smokers who come in for an office appointment, we wanted to be able to identify our 'current smokers' with a one-click report. This was accomplished similarly to the above processes, but with the addition of paying a programmer to add a location to record smoking status in our EMR 'intake form' which at room check-in verifies current medication lists, allergies, preventions that are due, a place to record vital signs *and now smoking status*. Again- the one-click report took months and months of time and recalibrating how we were undertaking the steps of our care for our patients.

All of this is to say that for us, our journey for quality improvement, though challenging, has been tremendously rewarding. We have learned that it takes much longer than we think it will, foundation work is an integral step, and most importantly: do not recreate electronic replicas of old fashioned processes that do not work or are not effective. "Do not pave the goat paths" has been our mantra. When we undertake a QI project we consider whether or not the current steps

are working effectively and efficiently. If not, then we must recreate the processes so that we can actually *improve patient care* and not remain in the realm of 'that is the way that we have always done it…"

We are happy to share any of our tools with you and we hope to report more successes to you in the future!