



CANADIAN ASSOCIATION OF PAEDIATRIC HEALTH CENTRES  
ASSOCIATION CANADIENNE DES CENTRES DE SANTÉ PÉDIATRIQUES



**CAPHC Patient Safety Collaborative**  
*CAPHC-SHN Paediatric Medication  
Reconciliation Collaborative*

**MedRec Reality Check – Moving From Intervention  
to Practice**

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# The CAPHC-SHN Paediatric Medication Reconciliation Collaborative (PMRC)

- In June 2005, CAPHC established an important patient safety partnership (Paediatric Clinical Support) with the Safer Healthcare Now! Campaign
- Among the six SHN! campaign interventions, CAPHC's Patient Safety Collaborative identified Medication Reconciliation as their national priority.
- The Canadian Association of Paediatric Health Centres – Safer Healthcare Now! Paediatric Medication Reconciliation Collaborative (PMRC) was initiated in August 2005, when seventy-five interdisciplinary child and youth health professionals from across Canada participated in an introductory Orientation and Training Workshop.
- The PMRC has been working in partnership with SHN, ISMP Canada and implementation teams across the country to expedite change and quality improvement in medication reconciliation at all paediatric centres and other related organizations across Canada.
- The implementation of MedRec has been complex and challenging however there has been tremendous collaboration from teams across the country
- Over the last two years, through the PMRC, the implementation teams have learned from each other, sharing challenges, strategies and successes

# The CAPHC-SHN Paediatric Medication Reconciliation Collaborative (PMRC)

- 17 health centres from coast-to-coast representing seven provinces have established 22 paediatric medication reconciliation teams
- Patient populations vary across the teams from children admitted to paediatric wards in community hospitals to more complex populations including nephrology, mental health and respiratory medicine within acute care settings
- Collectively the teams have made significant progress in *implementing practice change and improving medication safety*

## PMRC: Baseline Data Submissions

- Following the inaugural August 2005 workshop, teams began to collect and submit baseline data;
  - By July 2006, 17 teams had submitted baseline data
  - In 2007, another 5 teams submitted baseline data
  - As of December 2007, 22 teams have submitted baseline data
- 47 monthly submissions of baseline data
- Data collected on a median of 20 patients (range 10 to 94 patients per team ) and a total of 616 patients were reviewed

# PMRC: Implementation Data Submissions

- Teams began submitting implementation data in January 2006
- As of March 2008, 21 teams have submitted implementation data
  - 211 monthly submissions of implementation data
  - Teams have submitted a range of 1 to 27 months of audit data
  - Data collected on a median of 92 patients (range 13 to 574 patients) per team and a total of 2898 patients have been reviewed

# SHN – Central Measurement Team

## Measurement Goals

### ***Partial Implementation Stage***

- The team has set a clear aim(s) for the intervention, identified which measures will indicate if the changes will lead to improvement, and started to implement small tests of change (PDSA) to identify and refine processes, procedures and practices which will lead to improvement and achieving the aim. When the team is ***close to goal*** they are ready to move to Full Implementation.

### ***Full Implementation Stage***

- The processes, procedures and practices are finalized and have led to significant improvement. These practices on the selected unit are being consistently applied and monitored, ***showing a sustained performance at or close to goal***. The team has achieved their aim(s) and is ready to spread to other areas.

### ***At Goal***

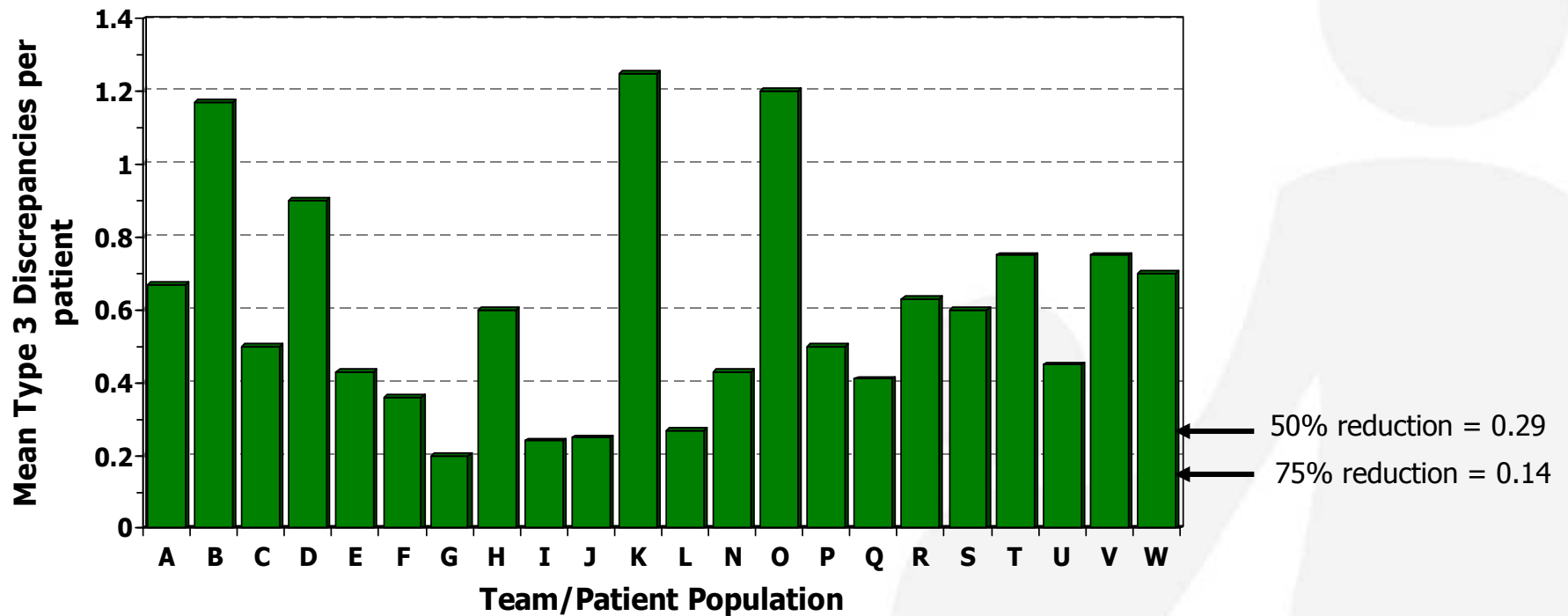
- The team has ***reached its measurement goals and has held its gains for six months*** and
- At this point the team now monitors its performance intermittently to avoid performance slippage. Voluntary quarterly data submission is encouraged

# Baseline and Measurement Goals

## *Type 3 Discrepancies (System-wide)*

- Across the paediatric teams, a total of 616 patients were reviewed during the baseline phase and 358 Type 3 discrepancies were identified – a rate of **0.58** per patient
- Based on the SHN! goal of reducing discrepancy rates by 75% we would expect this rate to drop to **0.14**
- A reduction of discrepancy rates by 50% (system wide) would give a goal rate of **0.29**

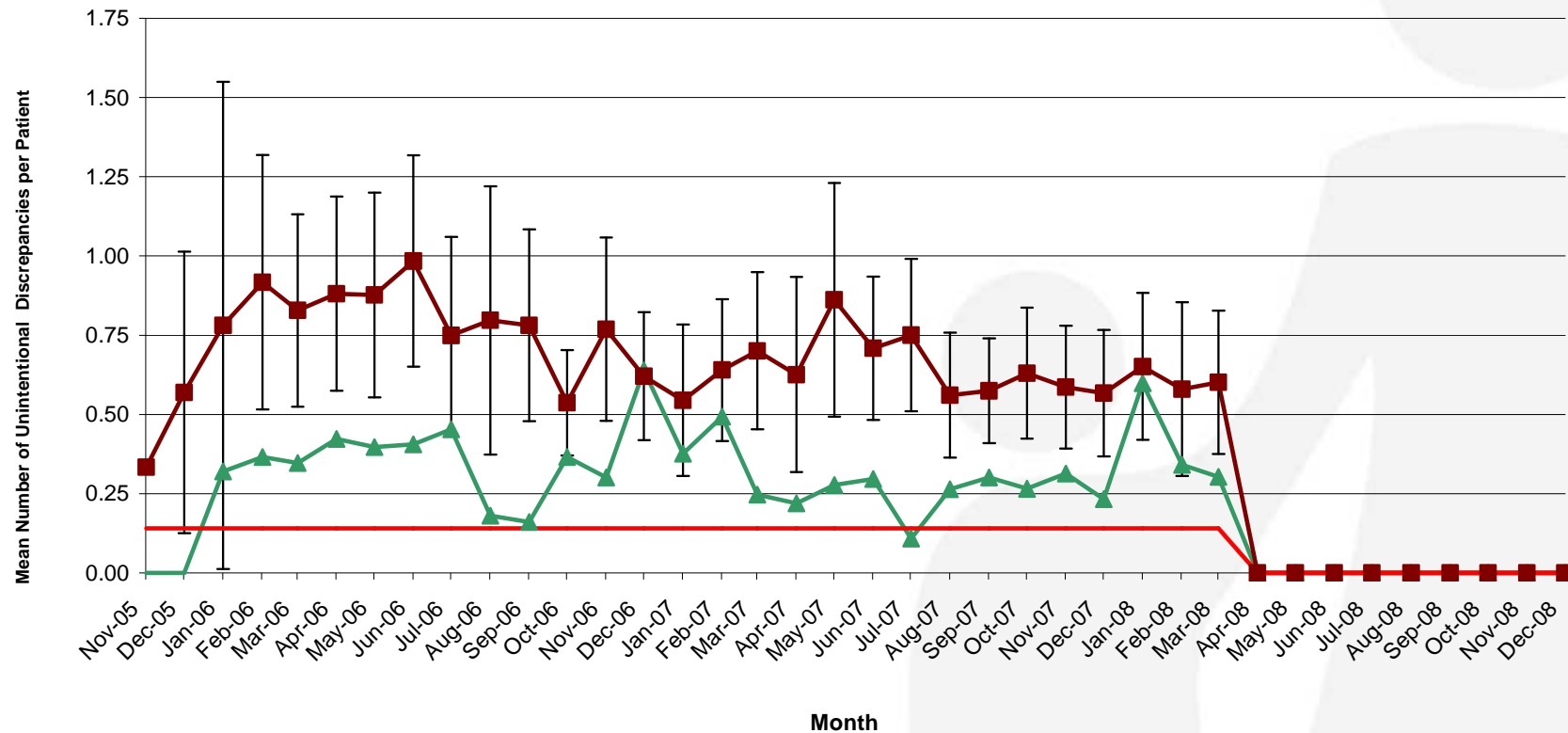
# Baseline data; Distribution of Type 3 Discrepancies



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# Mean Number of UNINTENTIONAL Discrepancies

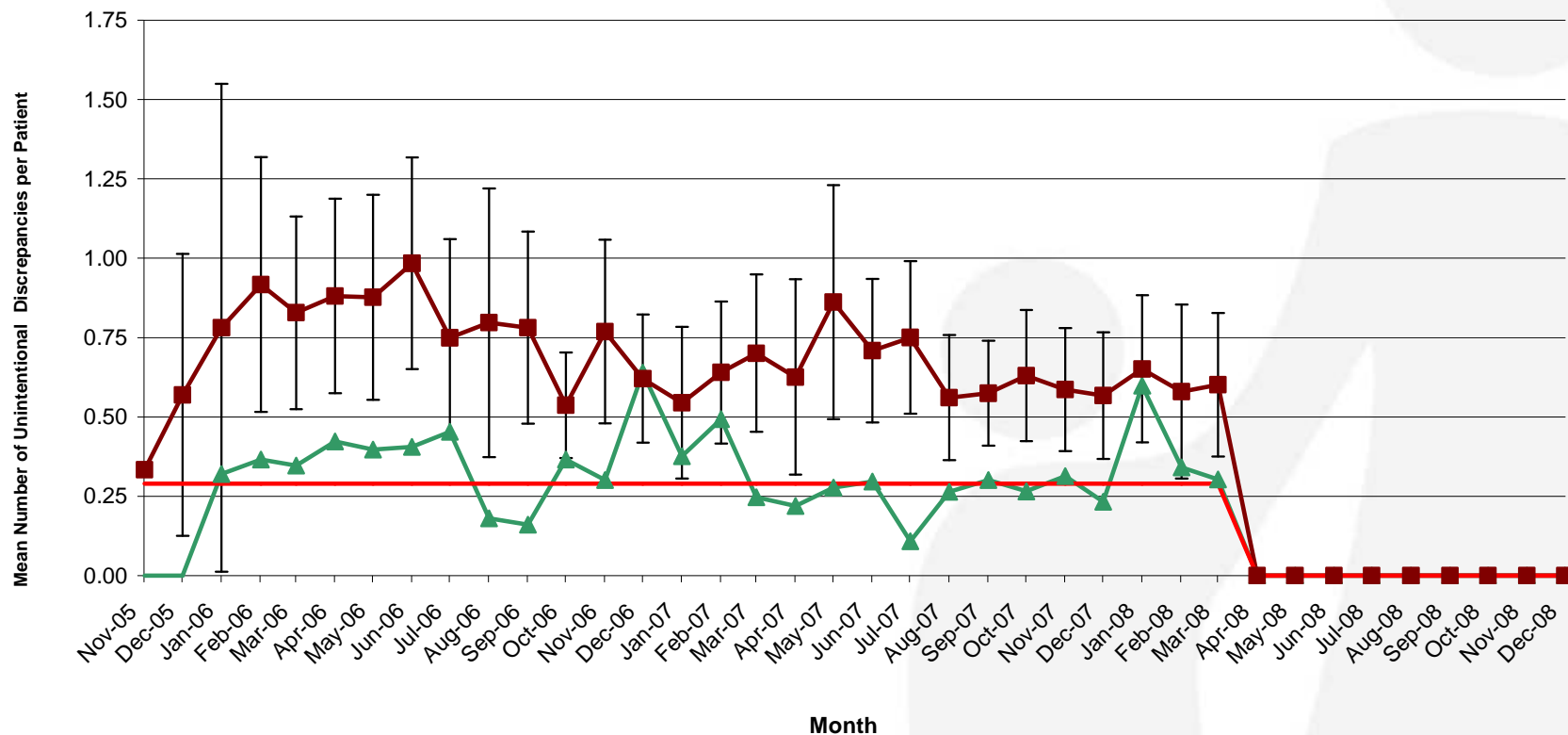
*National vs. Paediatric Teams - Goal line represents a 75 % reduction*



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# Mean Number of UNINTENTIONAL Discrepancies

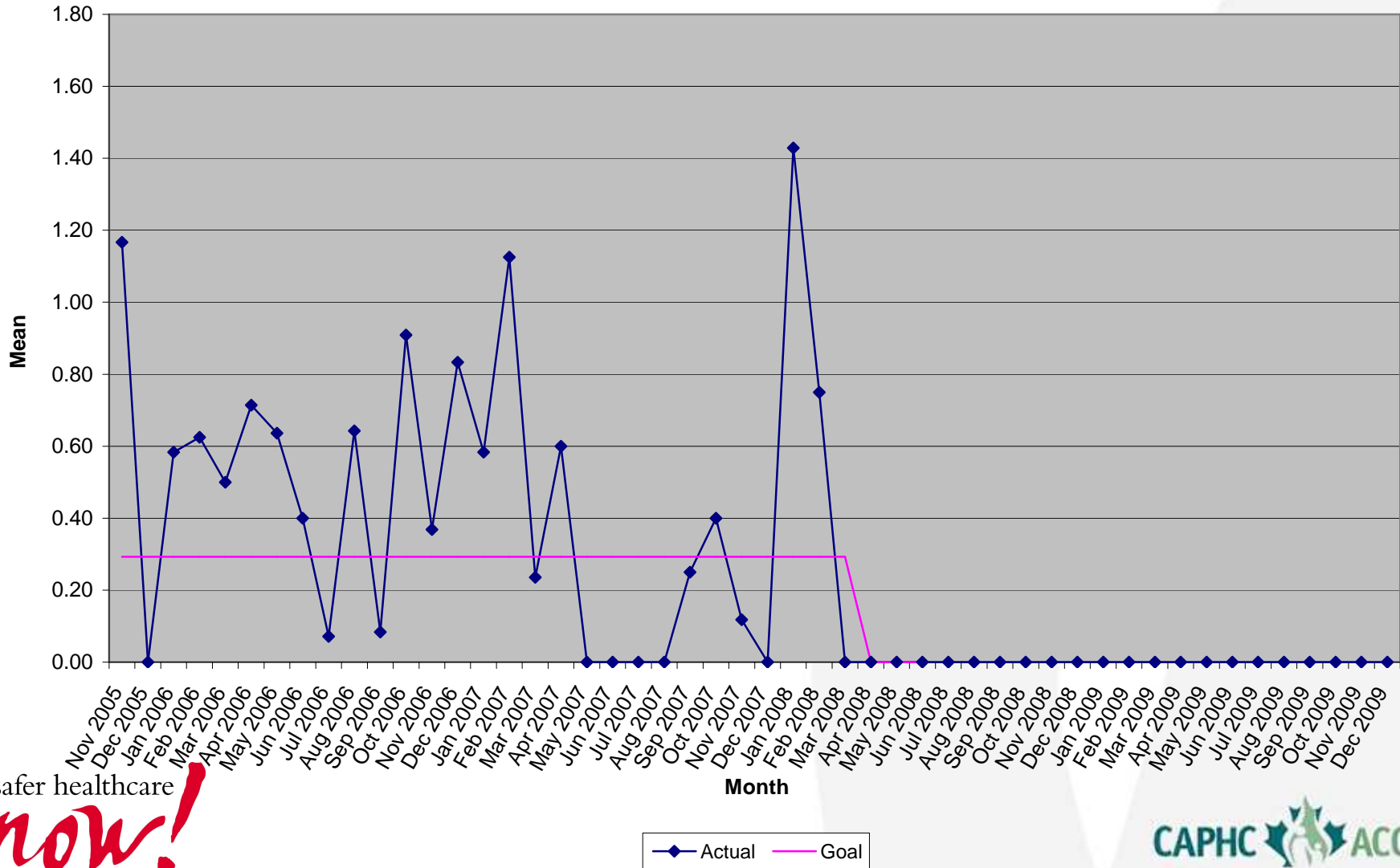
*National vs. Paediatric Teams - Goal line represents a 50 % reduction*



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# Team Example 1

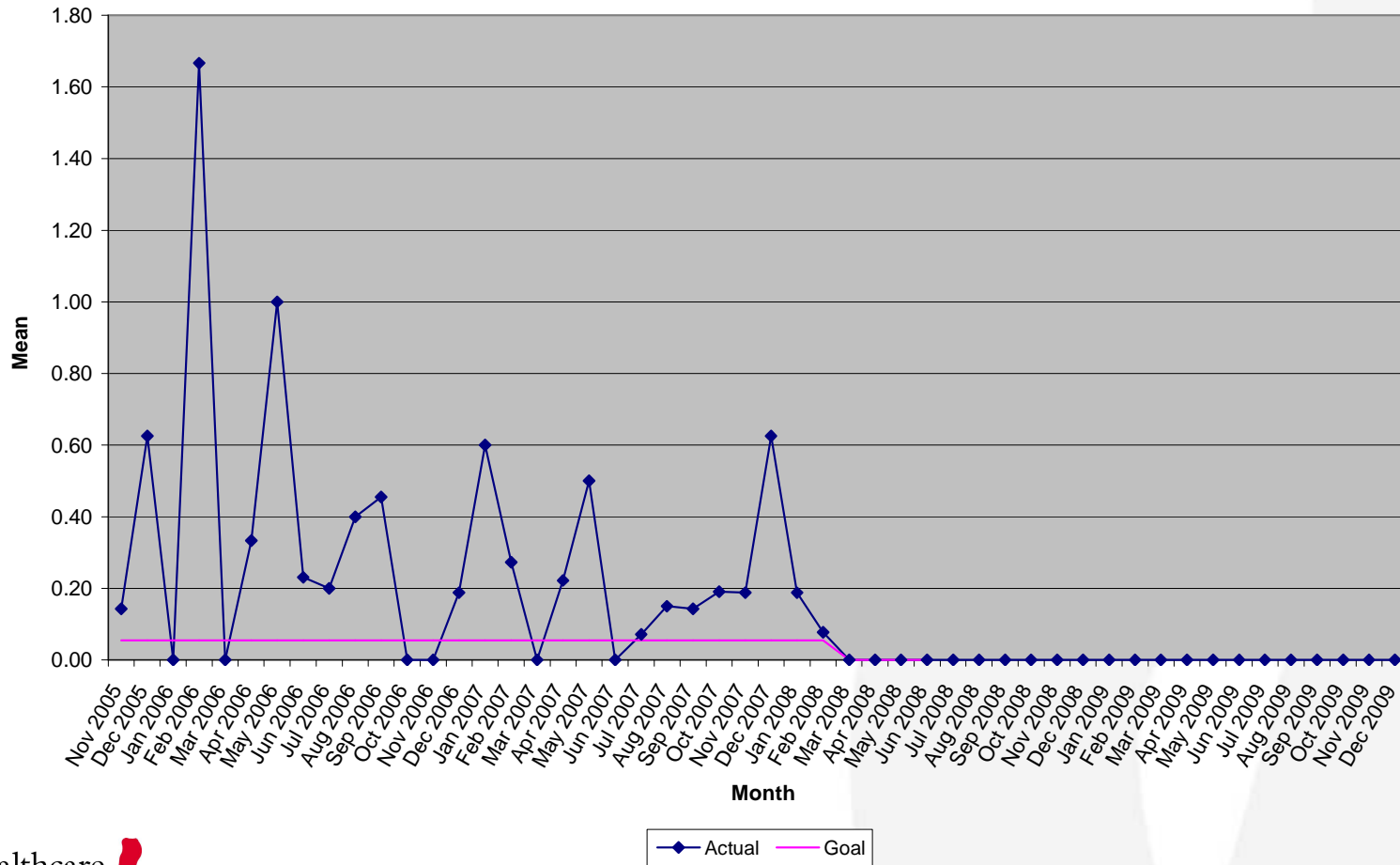
## 2.0 Mean Number of Unintentional Discrepancies



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# Team Example 2

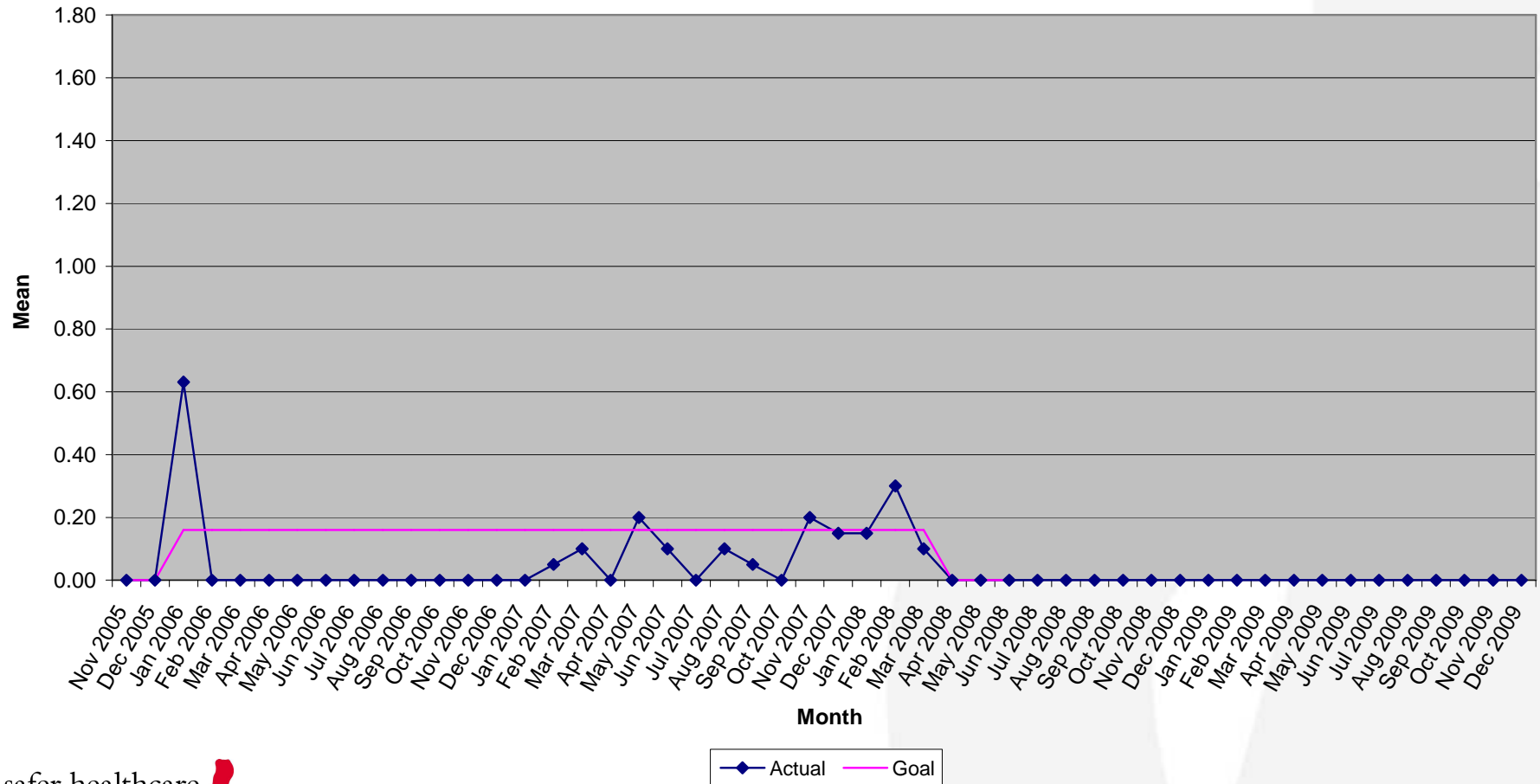
2.0 Mean Number of Unintentional Discrepancies



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# Team Example 3

## 2.0 Mean Number of Unintentional Discrepancies



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# Baseline and Implementation Data; *Type 3 Discrepancies (System-wide)*

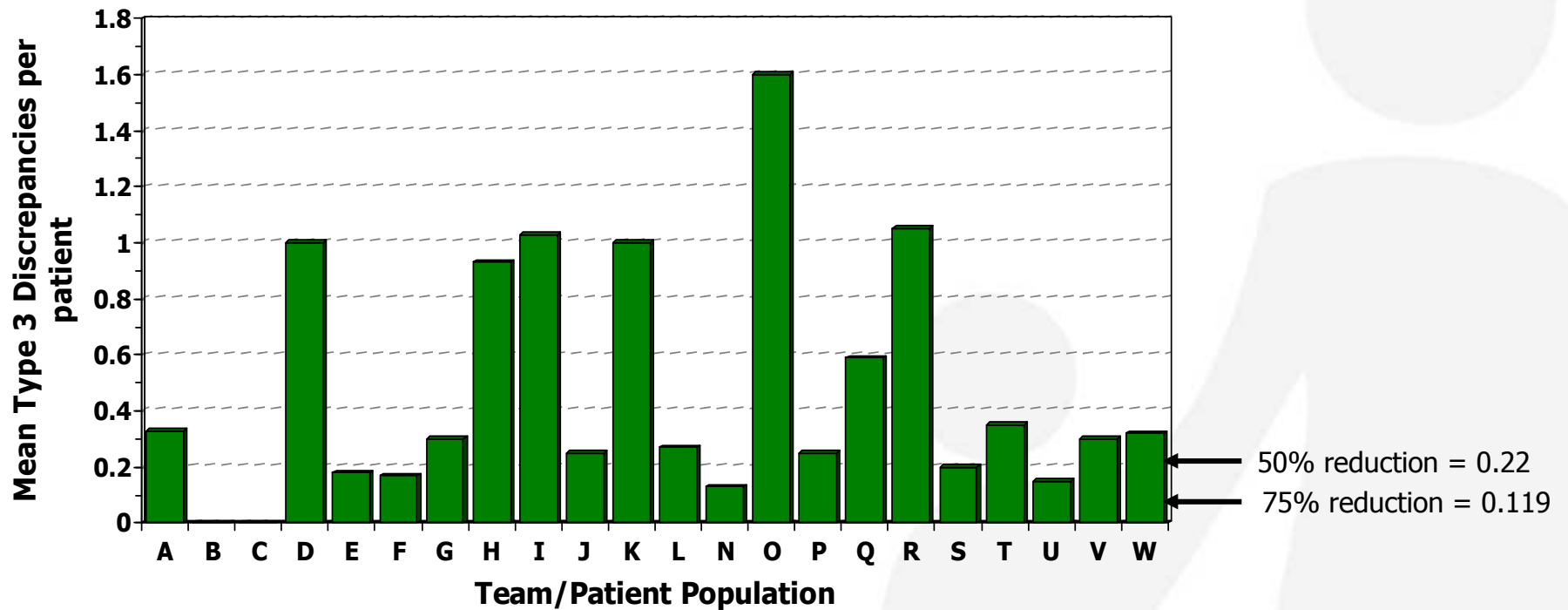
- From a system-wide lens there has been an overall decrease in Type 3 discrepancies
- Across the paediatric teams, a total of 616 patients were reviewed during the baseline phase and 358 Type 3 discrepancies were identified – a rate of **0.58** per patient
- During implementation of MedRec, a total of 2898 patients have been reviewed, to date, and 811 Type 3 discrepancies have been identified **0.28**
- Overall, for teams that have submitted partial implementation data, the mean number of Type 3 discrepancies per patient has decreased **56.9%**

# Baseline and Measurement Goals

## *Type 2 Discrepancies (System-wide)*

- Across the paediatric teams, a total of 616 patients were reviewed during the baseline phase and 271 Type 2 discrepancies were identified – a rate of **0.44** per patient
- Based on the SHN! goal of reducing discrepancy rates by 75% we would expect this rate to drop to **0.11**
- A reduction of discrepancy rates by 50% (system wide) would give a goal rate of **0.22**

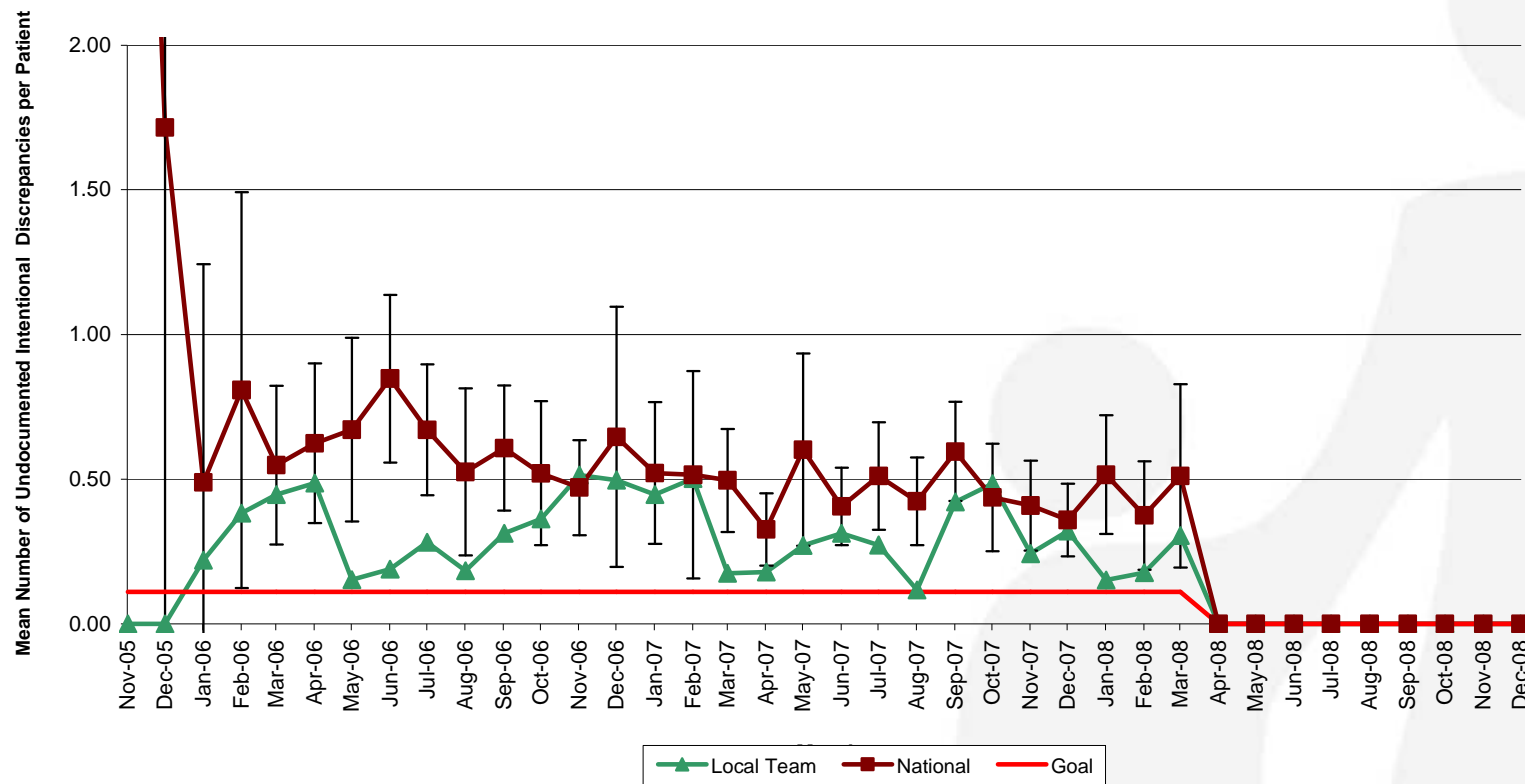
# Baseline data; Distribution of Type 2 Discrepancies



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# Mean Number of UNDOCUMENTED Discrepancies

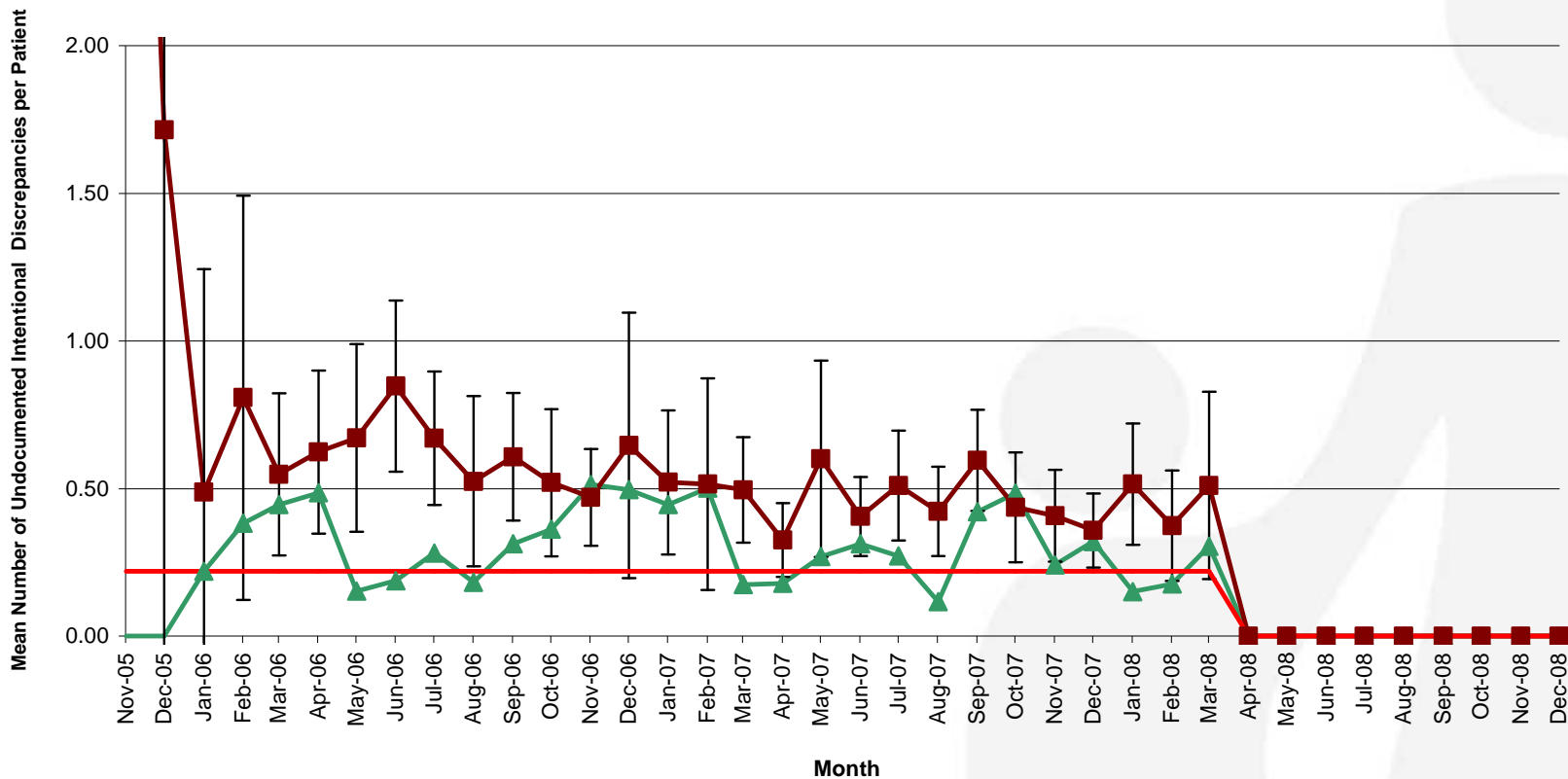
*National vs. Paediatric Teams - Goal line represents a 75 % reduction*



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# Mean Number of UNDOCUMENTED Discrepancies

*National vs. Paediatric Teams - Goal line represents a 50 % reduction*



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# Baseline and Implementation Data; *Type 2 Discrepancies (System-wide)*

- From a system-wide lens there has been an overall decrease in Type 2 discrepancies
- Across the paediatric teams, a total of 616 patients were reviewed during the baseline phase and 271 Type 2 discrepancies were identified – a rate of **0.44** per patient
- During implementation of MedRec, a total of 2898 patients have been reviewed, to date, and 885 Type 2 discrepancies have been identified **0.31**
- Overall, for teams that have submitted partial implementation data, the mean number of Type 3 discrepancies per patient has decreased **30.7%**

# As we continue our journey

*The CAPHC Patient Safety Collaborative would like to recognize the ongoing work of all of the participating centres, for without their commitment, extraordinary efforts and leadership, this work would not be possible!*

- **Children's & Women's Health Centre of BC**
- **Alberta Children's Hospital**
- **Stollery Children's Hospital**
- **Saskatoon Health Region**
- **Winnipeg Children's Hospital**
- **Bloorview Children's Rehab**
- **Children's Hospital of Eastern Ontario**
- **Children's Hospital of Western Ontario**
- **Credit Valley Hospital**
- **Grand River Hospital**
- **Hospital for Sick Children**
- **Kingston General Hospital**
- **McMaster Children's Hospital**
- **North York General Hospital**
- **Quinte Healthcare Corporation**
- **IWK Health Centre**
- **Janeway Child Health Centre**

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