

2007 Medicare Rural Hospital Flex Grant Project

USING HIT TO PROMOTE MEDICATION SAFETY



Project Partners

- Syringa Hospital & Clinics
 - Hospital
 - Grangeville Family Practice Clinic
 - Kooskia Family Practice Clinic
 - Women's Health Center
- Dr. W. Hollopeter Family Medicine
- Irwin Drug - Chad Jungert, Lead Pharmacist
- Mountain State Family Medicine - Dr. L. LeBlanc * (early partner, but closed practice in February 2008)



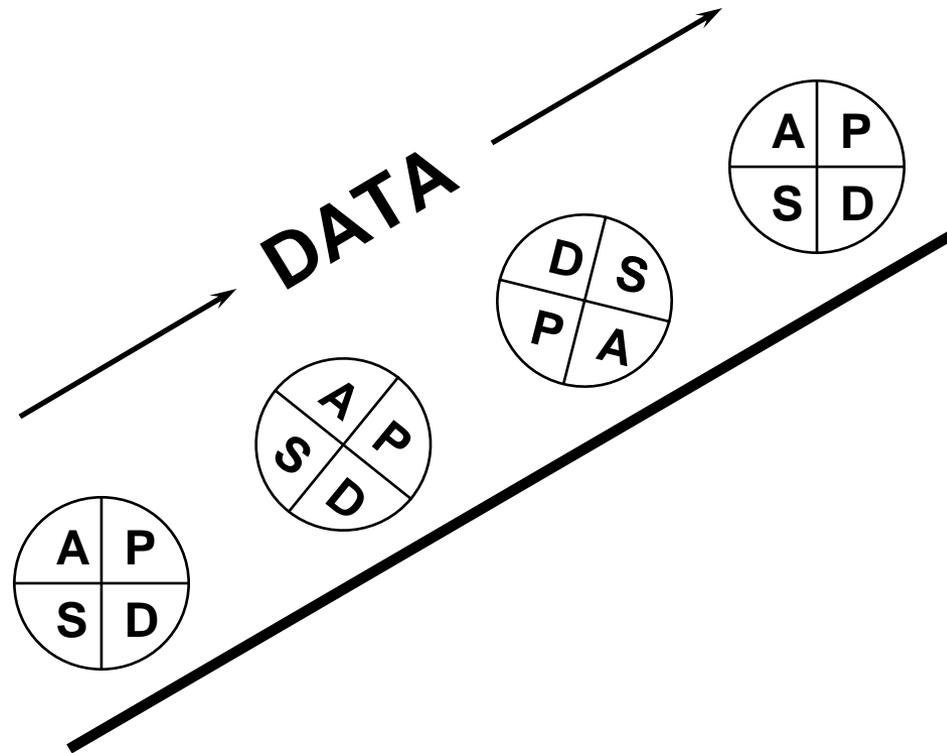
Project Goals

- Install an interface between Pyxis and the hospital information system to improve pharmacy workflow and charge accuracy
- Partner to establish connectivity with local physician clinics and a local pharmacy to improve medication safety
- Create a repository of patient medication lists accessible within the hospital, from off-site medical clinics, and from a local pharmacy
- Use the project as a learning tool and building block in SGH's transition to a complete EMR

Use of PDSA Improvement Cycles

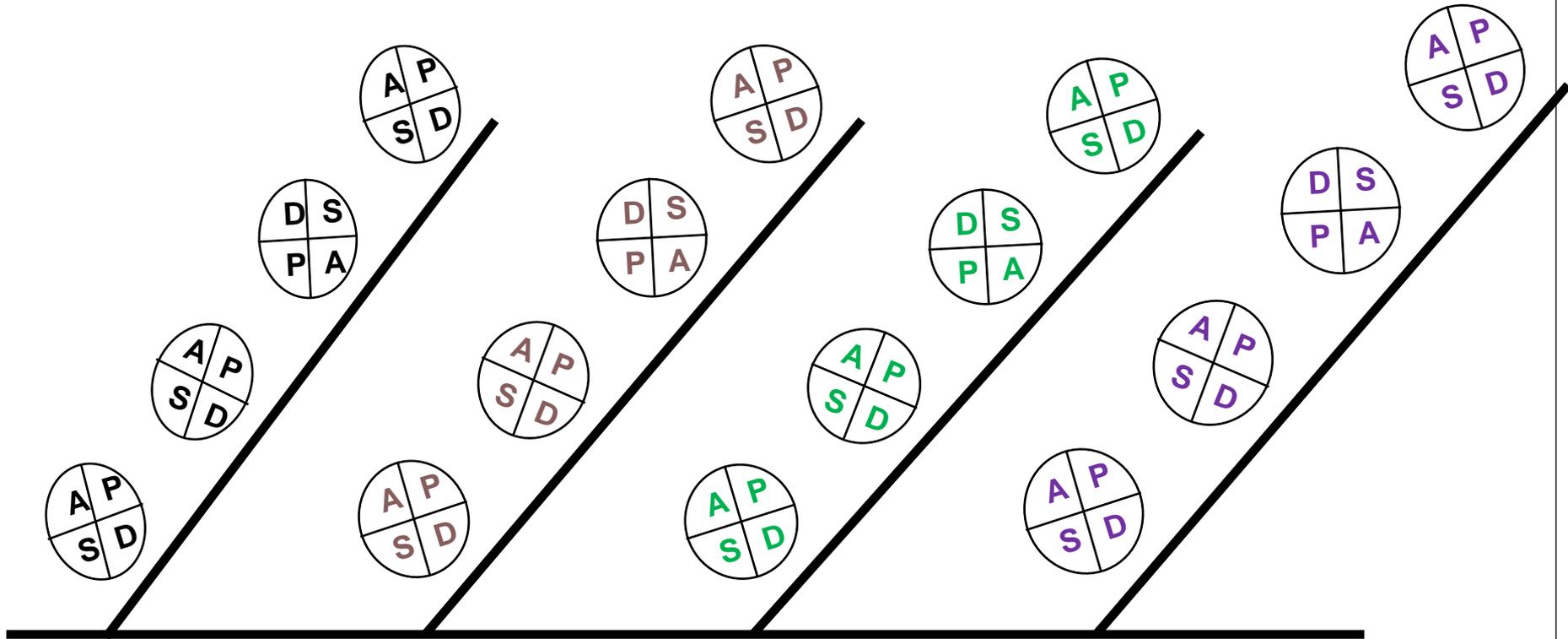
Plan ---Do---Study---Act

Changes that
result in
improvement



Hunches,
theories,
ideas

Multiple separate PDSA cycles



Interface

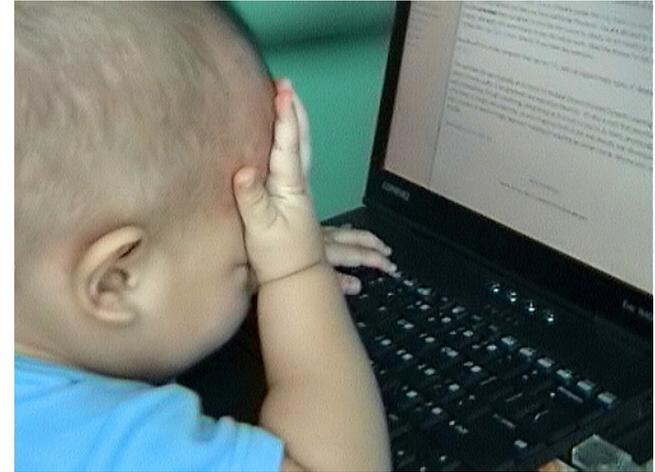
Pharmacist
review

Connectivity

Medication
List Repository

Pyxis Interface – pharmacy charge accuracy

- Expected to be the most straightforward project element
...*NOT!*
- Significantly underestimated time
- Initial target Feb 08 – continued oversight and tweaking lasted into Sept
- IT issues between Pyxis and billing system
- Parameter set up and unintended consequences
- Multi-departmental workflow changes
- Education, buy-in, support and oversight



Pyxis Interface— the gains

- > 90% of acute care and OB pharmacy charges now flow directly to the hospital information system
- Less nursing and billing staff time is spent on capturing, entering charges
- Increased charge accuracy due to reduced transcription and key entry of charges
- Lessons learned will be applicable to future EMR system interfaces
 - Process trumps technology
 - Staff learned to “walk in my shoes” while addressing inter-departmental workflow processes

Pharmacist review – medication safety



Goal: Medication orders and transcription to the MAR will be reviewed by the pharmacist before a medication is given by the nurse

✓	Vasotec 10mg po QD
✓	Prednisone 10mg i p QD
✓	Protonix 40mg i p QD

Until EMR, the best option became using fax communication

- No technology learning curve
- Shortest implementation timeline
- Stepping stone

✓	Reglan 10mg Po QAC qhs
✓	Accupril 20mg Po BID
✓	Toprol XL 25mg Po QD
✓	Loribid 5-500mg I TAB Po.
✓	Q 4 Honey PRN.

Pharmacist review – creating a smooth process

Workflow changes were necessary at SGH and at Irwin Drug:

- Monitoring fax traffic

- Documenting the pharmacist's review and findings

- Alerting nurses of approval or need for clarification

- Maintain documentation of the process within the hospital pharmacy



"I received your fax of the fax of the fax of the faxed fax.
Remind me what it used to say?"

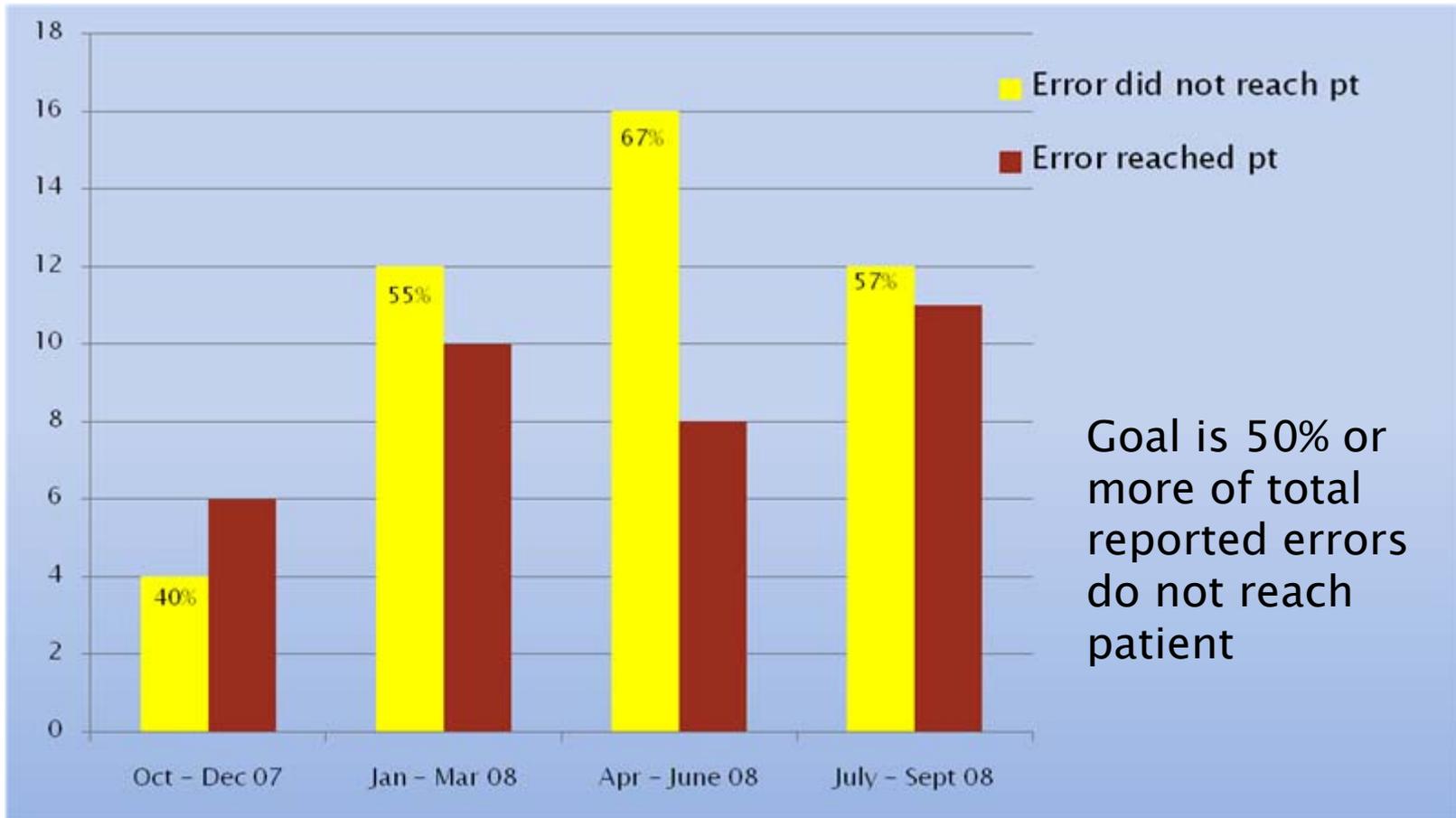
Pharmacist review – the gains

Improved safety – errors are being intercepted before the medication is given/missed

- *Azmacort inhaler 50/250 ordered and transcribed –physician intended to write Advair*
- *Lortab order missing from MAR*
- *Nubain 20mg transcribed as 200mg*
- *Clarifications regarding orders for medications that come in instant release and extended release forms*

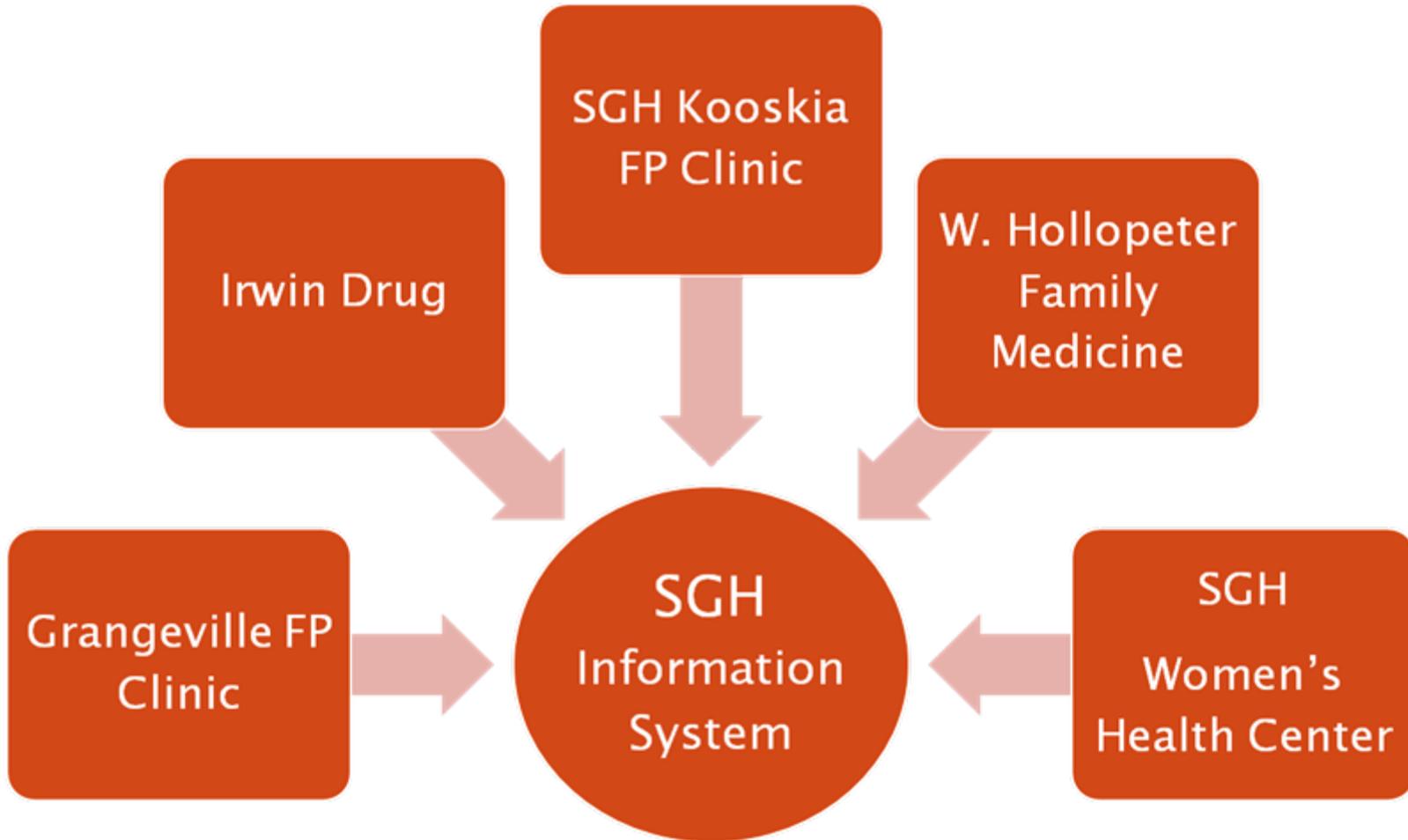


Pharmacist review – the gains



Capturing errors including “near misses” creates opportunity for system changes that can prevent future errors

Creating Connectivity



Upgrade to server and installation of a remote access VPN (virtual private network)

Connectivity– the gains

Hospital and remote sites now share access to:

- The hospital information system
 - *Range of each user's access is determined by job function
- SGH intranet e-mail system
- Patient medication list repository
- SGH formulary
- SGH's "A to Z" electronic clinical policy, procedures and protocols
- Other clinical logs and forms
- HR policies and forms

Connectivity– future gains with EMR implementation

- Pyxis “Profile” configuration
 - Pharmacist will be able to review EMR generated medication orders and MARs remotely
 - Pharmacist will be able to remotely control the nurses’ access to Pyxis med doses
- Repository of Medication Lists will continue to be available for reference, and may be scanned or imported into the EMR
- Individual access to other features of the EMR based on user’s role

A path to medication reconciliation

- *Goal:* An accurate, complete list of the patient's medications is created during each encounter with healthcare
- Medication reconciliation is a Joint Commission national patient safety goal
- Barriers to medication reconciliation
 - Requires interdisciplinary buy-in
 - "Plates are too full to tackle right now"
 - Lack of EMR adds to the complexity and workload
 - Unfamiliar process –sense that it is hard and complicated
 - Where to start???



Path to medication reconciliation Med List

- Nursing task force trialed new format
- Early success → tweaked and expanded the trial
- Continued positive feedback → approved for full adoption
- Standardized medication lists are now given to
 - Hospital patients/family
 - Physician Clinics
 - Home Health/Hospice departments
 - Receiving facilities for transferred patients



Path to medication reconciliation

Next step – Repository

- A SGH repository file of patient medication lists was created and placed on SGH's shared network drive
- Med Lists are in *Word* format, to enable universal accessibility
- The repository file is password protected to restrict access to appropriate staff



Medication list repository – Benefits to date

- Improved our process and format for hospital patient medication lists
- Standardized of medication list format throughout SGH
- The lists can be remotely accessed and updated for everyone's benefit
- Next steps for medication reconciliation are viewed as less overwhelming

Path to medication reconciliation

Future steps

- Draft and trial procedures for using the Med List for full reconciliation process
- Plan for transition to medication reconciliation via the EMR



Summary of Flex Grant Project

- Established VPN connectivity between SGH, its offsite clinics and two non-SGH owned health care partners
- Created a repository of patient medication information available electronically within and outside of the hospital
- Implemented an electronic pharmacist review process that has demonstrated success in intercepting potential medication errors
- Established a medication charges/credits interface between Pyxis and Dairyland information system



**THANK YOU SORH
& THE FLEX
PROGRAM!**