EXAMPLE: Systems Thinking – Increasingly Frequent Medication Errors

Readying and completing med-pass is complicated and time-consuming. Below is an example of the key people, processes, products, technology, and data/information flows involved. Arrows show connections and dependencies. Pain points/problems/barriers (in red) are noted.

People Who are the key people to consider?	Process What are the expected steps and processes involved?	Products What are typical products you might find in use? Where are they found or kept?	Technology What type & where might technology be used? What is needed for tech to be useful?	Data / Information Flow What information is generated? Where does it need to go? Who needs it & when?
Nurse Staff nurse or agency nurse?	Review MAR, check for changes; retrieve medications, VS & blood glucose done "Rights"-med, dose, route, reason, time, person	Meds – oral, liquid, injectable, creams Med cart, med cups, water; syringes; alcohol wipes, hand sanitizer	eMAR software, bedside scanner Kiosk/C.O.W.	Medication orders flow from prescriber → pharmacy → eMAR → nurse Labs VS, Glucose
Resident	Receive and take medications (or refuse)	Assistive devices, cup of water	Call light system	Documentation of administration/refusal recorded in EHR
Pharmacy staff	Receive order changes Dispense and deliver medications	Blister packs, delivery totes "Emergency dose"	Pharmacy dispensing system	Fill/delivery data feeds into eMAR and inventory system
Supervisor/Nurse Leader	Monitor timeliness, resolve issues, support staff	Audit logs, exception reports	Dashboards, alert system	Exceptions/incident reports flow up for oversight
Surveyors/QA staff	Observe compliance with protocols	Survey checklists	Compliance reporting dashboards	Reports compiled into QAPI/QA systems
CNA	VS done + documented	VS equipment	Ds Smart Kiosk?	VS → EHR

Reflection:

1. **Where do you see the most fragile points in the workflow?**
   Delivery delays, nurse interruptions, data not updated promptly so leaders miss issues.

2. **Where could technology or improved data flow help improve resilience, efficiency, or communication without adding burden?** Real-time delivery tracking, automated alerts for delays, dashboards showing pass status across the shift. Appropriate, resident specific de-prescribing initiatives reduces overall number of meds to pass.

Reggie Raye, Regional Nurse

Reggie Raye

Regional Nurse

Experience:

- 24 years' experience as a nurse
- 20 years' experience in both SNF and AL
- Experienced with technology for connected vitals, fall prevention, and resident engagement

Roles held:

- MDS Nurse, Charge Nurse, DON, Director of Health & Wellness

Other:

- A passion for Quality Assurance/ Performance Improvement (QAPI)
- Serves as a leader on her organization's technology committee
- Enthusiastic about EHR systems for their data and reporting capabilities

Scenario Overview:

Reggie has identified a "lack of resiliency" in her centers clinical and care processes. A combination of inconsistent staffing challenges, leadership turnover, and survey citations seem to send their teams returning to a starting over "back to the basics" approach too frequently.

Reggie is open to exploring creative and innovative technology enabled solutions, as long as they don't create more burden, risk, or cost.

She is leading a deep-dive into the systems involved in the care delivery process in her organization. The team is mapping key workflows to understand the people, processes, products, and technology involved. Naming the pain points/ problems/ barriers is critical to understanding where there might be opportunities to make the systems more "resilient" to errors or adverse events, and more "efficient" for staff.

Reggie's Core Elements of Good Care

1. **Knowledge & Scope –** conduct assessments, develop care plans

2. **Application –** interventions by staff with the right experience

3. **Response –** effective handling of unplanned care needs

4. **Communication –** across caregivers, providers, families

5. **Coordination –** with interprofessional team & service providers

6. **Intangibles –** human interaction: sharing, comfort, engagement, trust

7. **Monitoring –** continuous scrutiny of above

Common Barriers to Providing Quality Care

- Inadequate assessments, data inputs, and incomplete care plans (right knowledge not made available to the care staff)

- Poor or wrong interventions on the service plan

- Staff do not use the care plan to inform how they provide care

- Staff not skilled in providing designated care, nor responding to unplanned needs.

- Care staff spending time on finding equipment, supplies, other people

- Not enough staff available to deliver what is on the care plan nor respond to unplanned care needs.

- Interprofessional team members and /or service providers missing needed care

- Documentation not completed (due to time, access, lack of knowledge)

- Communication failures (myriad of reasons)

- Not enough time for intangibles (human interaction, sharing, comforting, engaging, helping)

- Not the right attitude to deliver intangibles (human interaction, sharing, comforting, engaging, helping)

- Technology creates more workarounds and inefficiencies