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Improving Waiver Outcomes: Real Time with a Registry

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A little about Parkland

- Opened 1894 as the Public Academic Health System for Dallas
- 862 Adult Beds
- 107 Neonatal Beds
- Level I Trauma Center, III NICU
- Something happened in 1963…
- 12 Community Health Centers
- 12 school based clinics
- Second largest civilian burn center in U.S.
- Parkland is the primary teaching hospital for the University of Texas Southwestern Medical Center
- Several Mobile Clinics and Youth and Family Centers
- Numerous other services…

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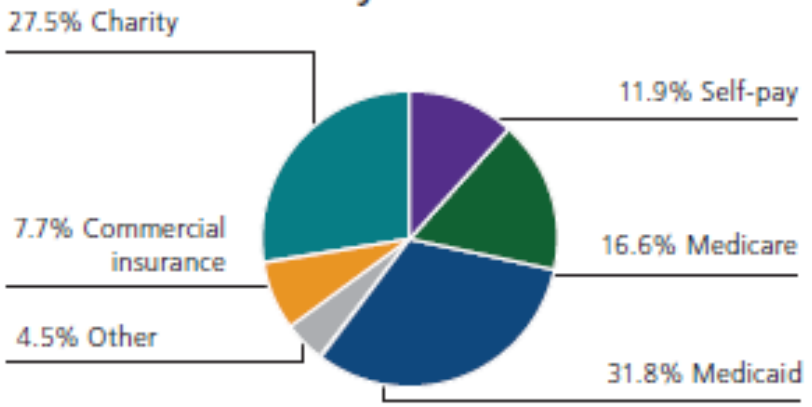
Current workforce

Parkland is a major economic engine for Dallas County, employing and training thousands of people. In fiscal year 2018, Parkland employees totaled approximately 12,500. Of those employees, 4,177 were registered nurses.

FISCAL YEAR 2018

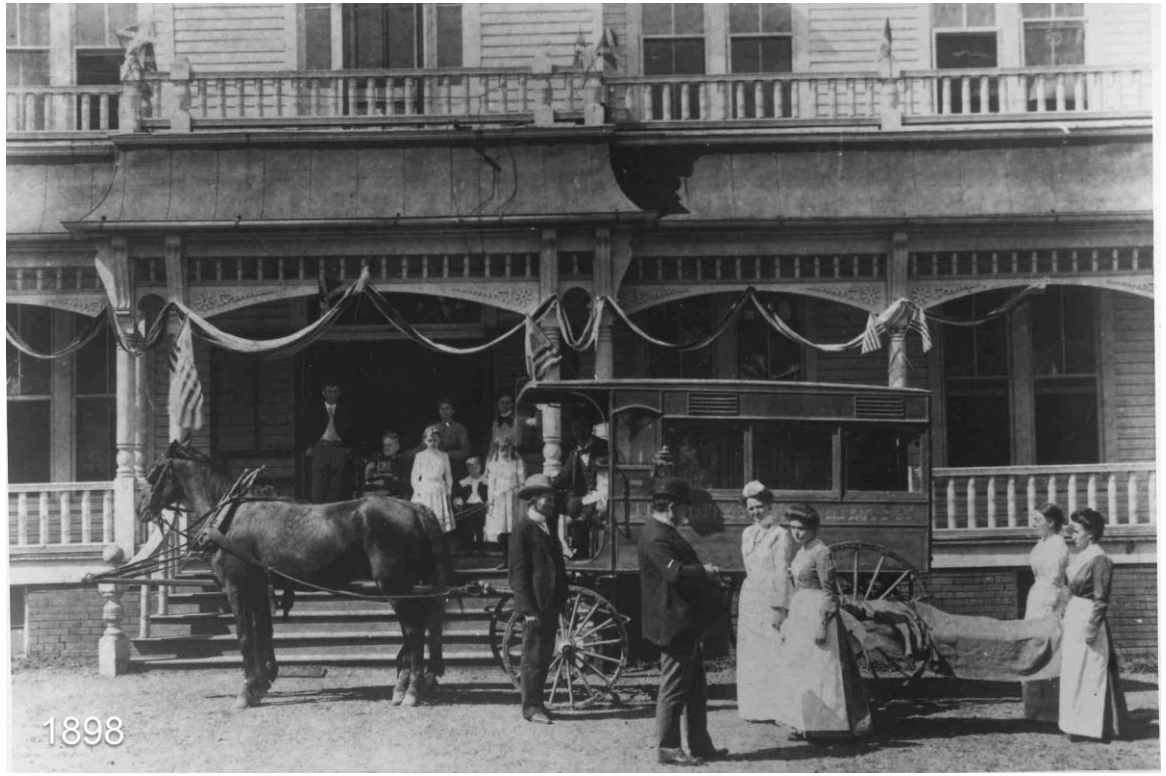
Payor Mix



FISCAL YEAR 2018

Discharges	
Adult inpatient discharges	38,478
Neonatal inpatient discharges	1,466
Newborn nursery discharges	11,139
Observation / short stay	21,258
Total discharges	72,341
Deliveries	12,583
Pathology procedures	11,512,099
Radiology examinations	529,433
Prescriptions filled	10,490,650
Surgeries	
Main operating room	17,440
Simmons Ambulatory Surgery Center	3,731
Total surgeries	21,171
Outpatient visits	
Specialty clinic visits	352,442
Community clinic visits	444,397
Women's clinic visits	240,481
Total outpatient visits	1,037,320
Emergency visits	
Main emergency room	177,781
Urgent care visits	64,859
Total emergency visits	242,640

125 Years!



Blast from the Past

- Dallas County Population: 60,000
- Primary mode of transportation: Horse
- Roads: Dirt
- Electricity was a new novelty
- "It has a complete and perfect system of electric lights."
- Practice of medicine: Unregulated. Anyone who registered with the Dallas city health officer as a doctor could practice medicine—no requirement for training.
- Surgical mortality: ~50%
- Common medicines: Arsenic and Mercury
- Hospital expense: $7-12 per WEEK for room, food, medicine, and nurse care
- DMN: "Parkland…the most substantial, capacious and elegant hospital in the state"
- EACH ward had hot and cold water and a bath tub

*Images of America—Parkland Hospital; James W. Boyd, MD, Arcadia Publishing, 2015.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Statement of the Problem:

- Waiver needs are complicated and fluid due to a) definition changes/revisions (uncommon) and b) patient needs/situations
- Reporting for the sundry of waiver-related deficits of patients is painstaking and time consuming
- As we tried to operationalize effectively addressing these needs, we identified a deficit in timely, actionable data at elbow for ‘boots-to-the-ground’ clinicians

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Solutions:

- Version 1:
  - Reports emailed out to leaders who then emailed downstream to their directors, then to managers, etc…
  - Reports contained EVERY patient in the waiver for EVERY clinic for EVERY metric
  - Managers and their staff would then cull through the reports to find patients from their clinics with needs relevant to their clinic operations
  - Managers would then either:
    - Have nurses reach out to the patients via telephone encounter to address the need
    - Alert clinic care teams when the patients came in for care the next visit for “just in time” addressing of the care gaps

- Issues:
  - Time consuming
  - Disorganized
  - Difficult to operationalize
  - Not integrated within the EHR

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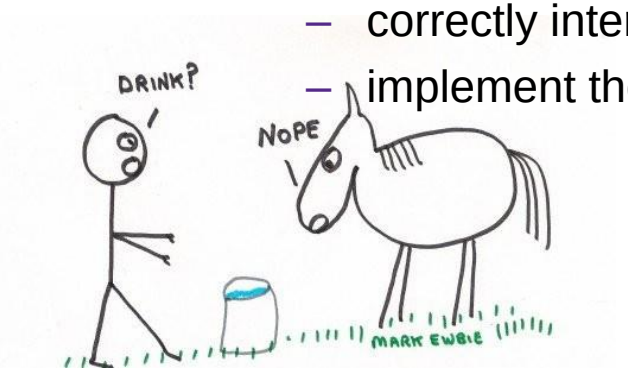
Solutions:

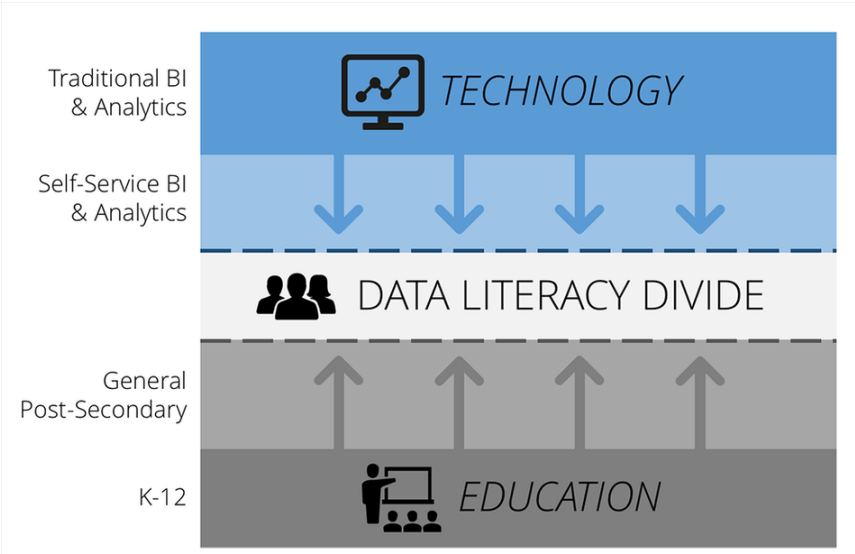
- Version 2:
  - Reports generated and sent out to leaders and directors which were easily filterable to the clinic and metric to better allow them to address the needs in manners that fit their operations
  - Take ~24 hours to run all 40 metrics
  - Cannot run concurrently as many utilize the same tables, etc…

- Issues:
  - Not integrated within the EHR
  - Still time consuming to generate the reports
  - Time consuming to effect actions on the filtered reports

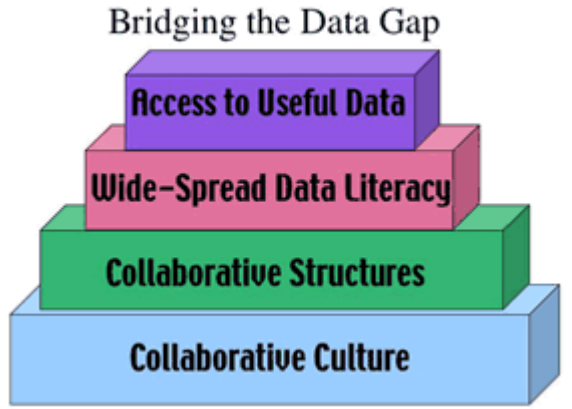
A Sidebar: Data, Meaningful Data, and Actionable Data

- Arthur Benjamin
  - In his 2009 TED Talk, mathematician Arthur Benjamin advocated it's time for mathematics curriculum to shift from analog to digital, and for **statistics and probability** to replace *calculus* at the top of the mathematics pyramid.
- How well are all of us and our clinical and operational teams prepared to use statistics and data analysis to drive the "waiver needle"?
- If we lead the clinical care teams to data, do they have the training to:
  - appropriately utilize the tools?
  - correctly interpret the data?
  - implement the right actions based on them?





Why Companies Must Close The Data Literacy Divide; Brent Dykes, Forbes, March 9, 2017



Nancy Love, Bridging the Data Gap, MSPnet; Feb, 2004

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Current Proposed Solution:

- Registry
  - Definition: An information system for registering metadata (*Wikipedia)
  - Theory: If we produce and collect the data in the EHR, why not aggregate it within a registry to allow for more easy and rapid access and allow for more robust conduits within the rest of the EHR?
  - Uses:
    - Dashboards
    - Discrete flags for deficits
    - Decision support
    - At-elbow reporting for care teams and clinics
  - Benefits:
    - More real-time data
    - Integrated within the EHR

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Registries at Parkland

- Currently have 52 registries build out for a variety of disease states, metrics, or patient populations
  - UNOS -- Dialysis
  - Chronic Pain -- Neonatal
  - NAIP -- PCMH
  - Cirrhosis -- Asthma
  - DART -- Obesity
  - Epilepsy -- Thyroid

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Our Implementation:

- Registry is built out effective March 2019

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In Process: Creating RWBs for every metric

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Sample report

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Future State: Dashboards

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Other Tools to Operationalize:

- System or Clinic Level:
  - Major reports at the system level for each waiver metric
  - Local reports to identify needs of patients coming in that day or the next day
  - Local reports to identify specific “buckets” of gaps in their specific clinic population that can be approached in a pop health manner through:
    - Bulk messaging and bulk ordering
    - Pop Health team outreach (care managers, navigators, nurses, etc…)
  - Multi-provider Schedule: Add Icon/flag to identify patients w/care gaps
  - SlicerDicer tool

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Other Tools to Operationalize:

- Patient Level:
  - Alerts to care team:
    - Passive:
      - Flag in header or passive best practice alert in the navigator
      - Close chart validation points to flag if trying to close a chart and the care gap remains
      - Print groups to display current waiver-related deficits for the patient
    - Active:
      - Pop-up alert upon opening chart
      - Order entry alert—notify providers of gaps when they are ready to enter orders
      - Smartforms—single standard location for addressing waiver-related needs
      - Smartlinks in templated notes

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Struggles/Issues:

- Clear, consistent expectations and definitions from stakeholders as to HOW they want the data to be presented to them
  - Global
  - Patient-centric
  - Metric-centric
  - Clinic-centric

- Synchronizing the reports—clarity, vs. datalink vs. specific tables being accessed by each

- Getting IT and CI teams to work together and even IT teams within themselves (Reporting vs. Ambulatory vs. Nursing Informatics, etc…)

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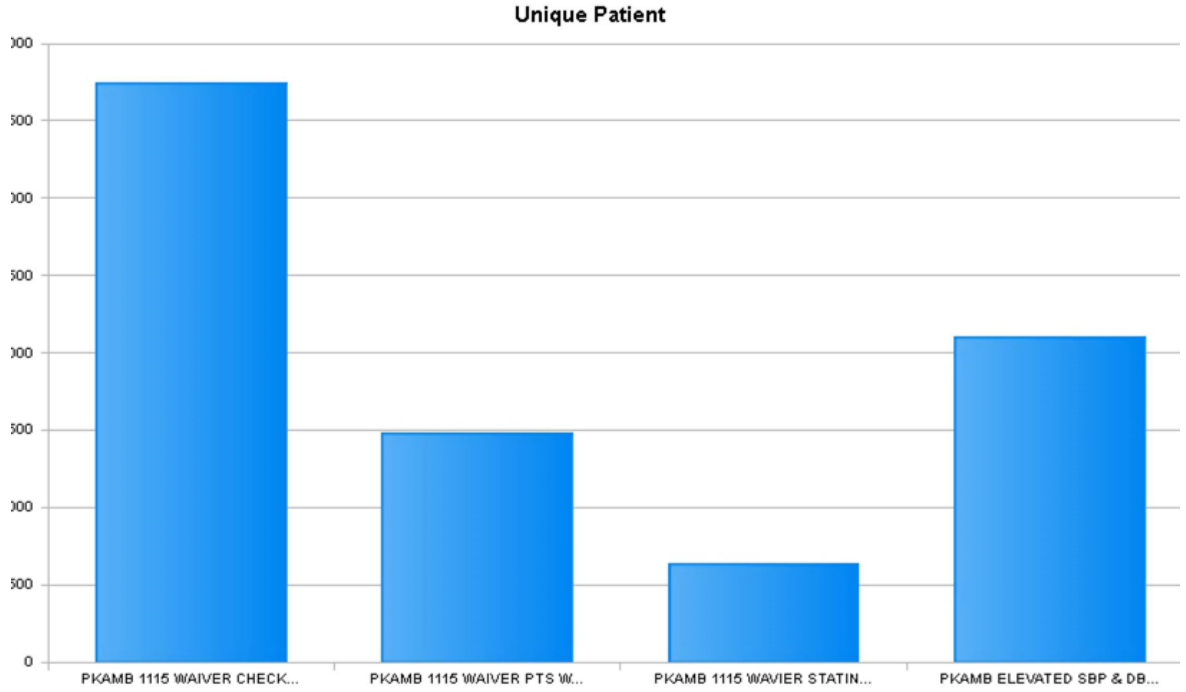
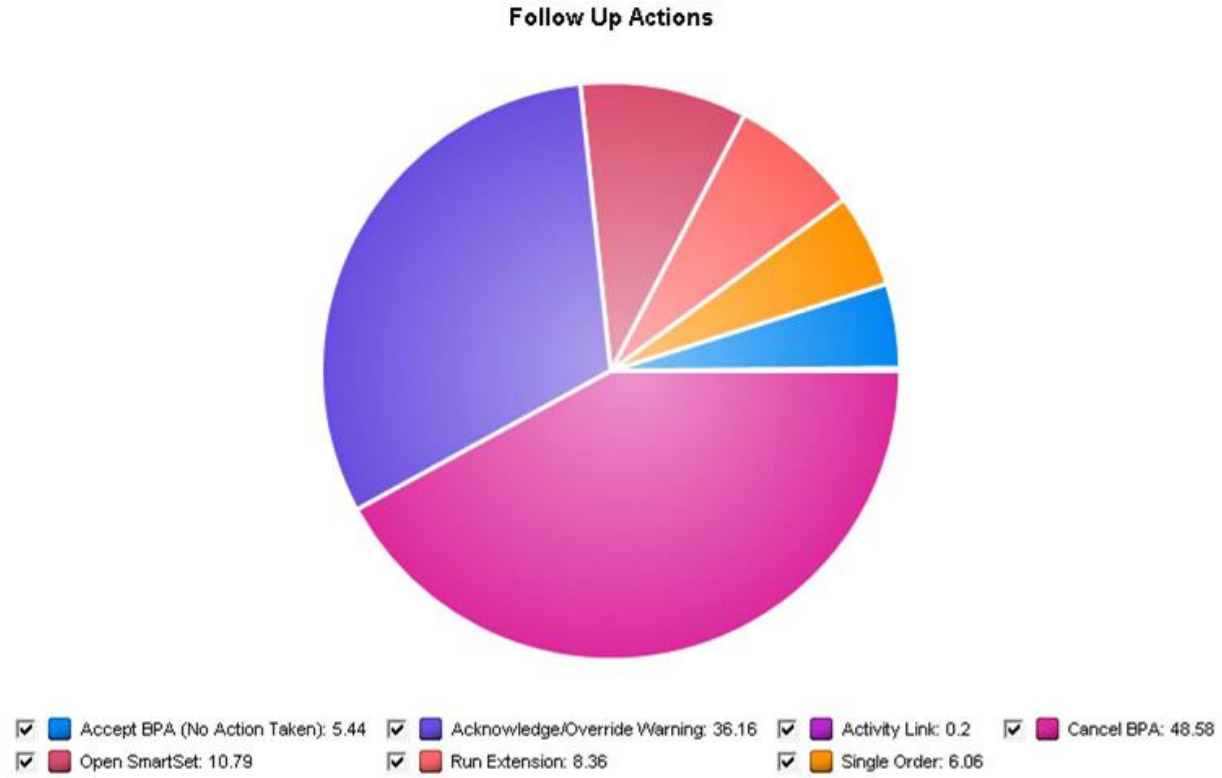
Struggles/Issues:

- Current state expects clinic staff to run individual reports for each metric
- Creates convoluted and redundant workflow
- Lack of “just in time” accurate information led to poor decisions on our part regarding CDS





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CDS Issues:

- Were not actionable
  - E.g. “Your patient has been identified as a smoker, please document your intervention”
- Were busy
  - Open the smartset to address their elevated blood pressure
- Fired in the wrong context
  - Opening the chart prior to having time to review the patient and chart
- Fired for the wrong people
  - Telling nurses to address abnormal blood pressure values
- Often didn’t include a tool or ability to address the need from the BPA
  - Were purely informational and users would have to click OK and then navigate to other places in the chart to address

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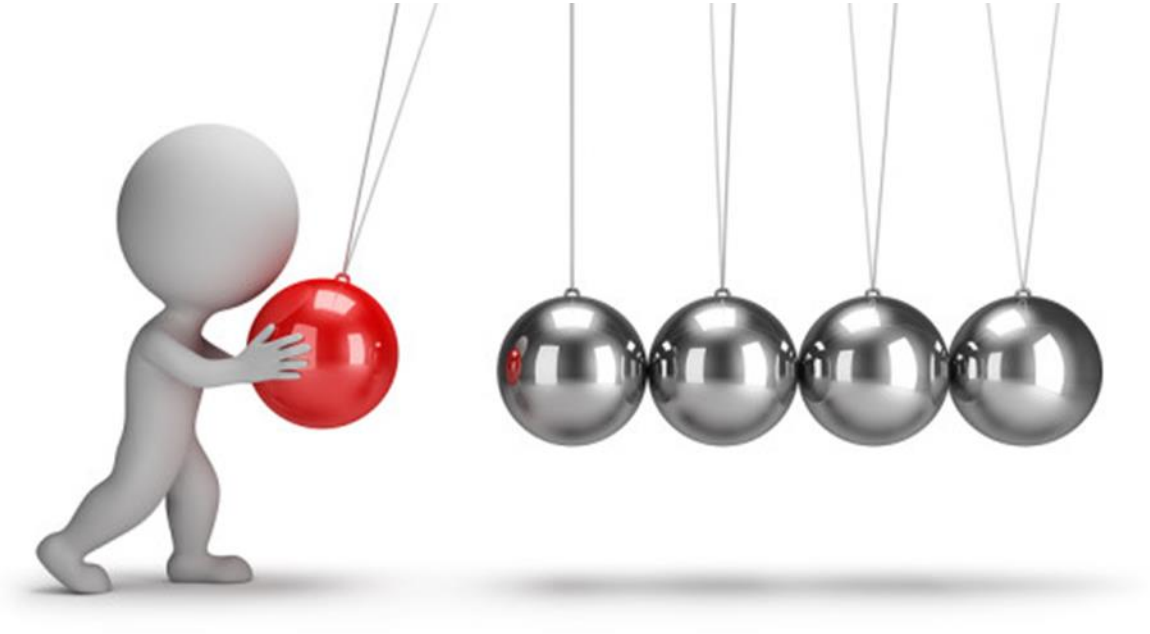
Next Steps:

- Complete operationalizing all the reports associated with the metrics, but coming out of the registry, which will allow for more timely, abbreviated, and rapid reports
- Work to incorporate flags to identify patients with waiver-related needs—either individually or as a single flag—to more readily be able to visually cue off the chart and take correct actions in the right context for the right patient at the right time.
- Standardize the process for the “efferent” arm of the waiver
  - Similar look and feel to each alert
  - Similar place
  - Similar action options or opt out options
  - One place
  - Consistent
  - Less intrusive



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Future Direction:

- Improve efficiency such that we can run reports nightly
- Create “omnibus” report or aggregator—ideally create discrete flag for each metric
- Push value into that flag with nightly reports to identify those patients with gaps for that specific metric
- Create decision support within the EHR that looks at ALL the metrics and flags if ANY are deficient
- This flag can then be pushed and displayed in many locations—in the schedule, in the header, in the after visit summary, etc…
- If one clicks on the flag, it would then display a print group that would display all the care gaps that the patient is deficient in
- Create standardized procedure for addressing care gaps (80/20)
  - E.g. smart form in the encounter navigator
  - Go there ANYTIME a patient has a care gap need and fill out the appropriate area

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Questions?

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