Implementation Journey of Postpartum Hemorrhage Bundle and Walk-in Contraception Services

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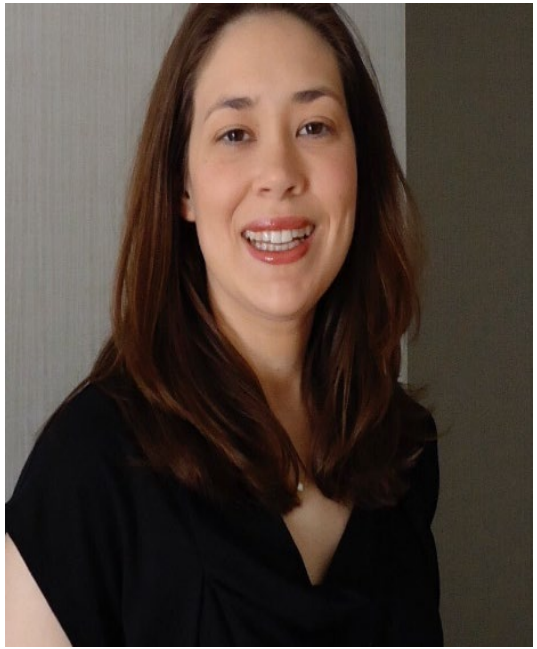

Photo of presenter

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Dr. Didrickson has her doctorate in Nursing Science from the University of Arizona and her research centers on stress in pregnancy in military populations.

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Learning Objectives

At the conclusion of this activity, participants will be able to:

1. State the three infrastructure components needed to implement an enterprise-wide policy with compliance and outcome metrics.
2. Interpret performance trends in implementing various components of a leading practice bundle or administrative instruction and how feedback loops assist with creating tools or resources to further implementation and create sustainment.
3. Describe the importance of creating an electronic sustainable data collection method and supporting tools that can be integrated into enterprise-wide data tracking and reporting mechanisms.

Postpartum Hemorrhage (PPH) Overview

- Background for PPH
- Clinical Guidelines
- Bundle implementation Strategies
- Implementation Supports
- Leveraging Electronic Health Records (EHR)
- Metrics and data collection
- Key drivers for Success in Implementation

Postpartum Hemorrhage Background

- PPH (defined as 1,000mL blood loss after delivery) is the leading cause of preventable maternal death worldwide (WHO, 2017).
- According to a TRICARE report in 2021, Military Health System (MHS) rates were 7.4 deaths per 100,000 live births (compared to 11.3 at non-MHS facilities nationally) (TRICARE Newsroom, 2021).
- Preventing PPH entirely is not feasible; however, the prompt assessment, recognition, and communication of maternal hemorrhage risk, as well as timely interventions based upon risk level, can reduce maternal morbidity and mortality. (ACOG, 2017)
- The **Alliance for Innovation on Maternal Health**'s four R's framework (**Readiness**, **Recognition**, **Response**, and **Reporting**) were foundational as a national benchmark for the components and outcomes of the MHS goal to decrease Severe Maternal Morbidity and Mortality (SMM). (AIM, 2022)

PPH Bundle Clinical Guidelines

- The PPH bundle consisted of eight key components to be implemented and monitored for compliance:
    1) Stage-based checklist
    2) Risk assessment
    3) Measured blood loss
    4) Obstetric emergency cart
    5) Massive transfusion protocol
    6) Oxytocin protocol
    7) Education and training
    8) Simulation and drills

PPH Bundle Implementation Strategies

- **Purpose**: Develop an infrastructure to support implementation of the PPH bundle.
- **Process**: After assessing organizational capacity, the team employed several implementation strategies to drive change and ensure sustainment of the PPH bundle.
- These strategies aimed to:
  - Enable change through **champions** and **peer mentors** supplemented by **robust resources** (regular PPH champion meetings, discussion board, resource website)
  - Provide prompts using EHR workflows
  - Use a data-driven approach to inform progress and identify pain points within each component for early intervention

Implementation Supports

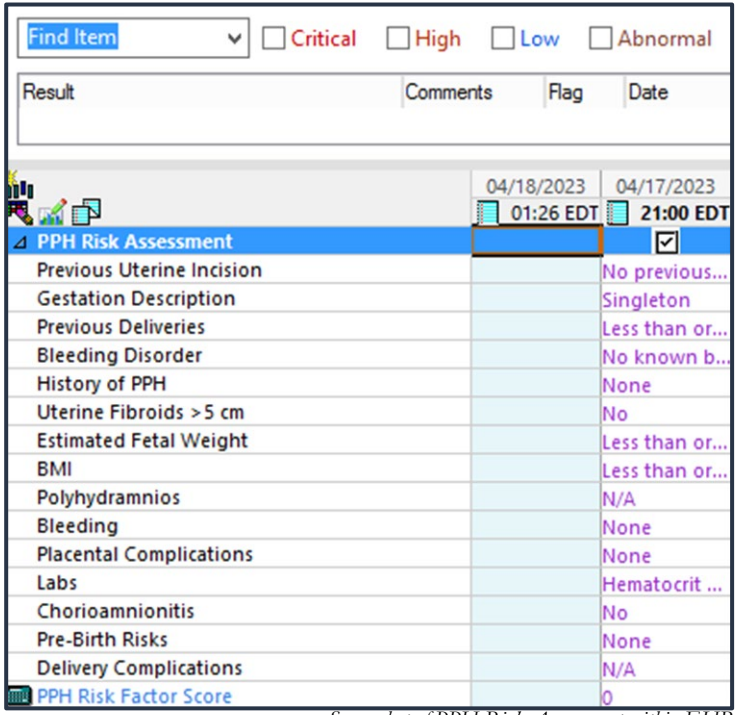
- **Train staff on PPH guidelines**
  - Regular check-ins with champions
  - 1:1 meetings for Military Treatment Facilities (MTFs) that fell behind with compliance goals
- **Establish program champions**
  - Regular communications by email and scheduled meetings
- **Create resources to support implementation**
  - Robust resource guides available on a dedicated web page with evidence-based support
- **Enable compliance through EHR Functionality**
  - Continued revisions and updates to the EHR to support PPH bundle integration

PPH Bundle Campaign Implementation

- **Campaign Goal:** Implement the PPH bundle with 80% compliance across all eight of the DHA-PI components at all 12 Bundle Campaign facilities by September 30, 2021.
- **Phased Approach:** The eight PPH bundle components were divided across “sprints” as a method to aggregate practices that would allow MTFs to focus on specific topics synchronously and collaboratively.
- **Purpose:** Ensure staff resources are available and well-trained to execute bundle components; create opportunities to identify and address individual challenges as they arise.

Leveraging EHR

- Defined intervals for assessments across perinatal admission
- Supported clinical decision making based on risk level
- Allowed for standardization of documentation to support assessment of PPH bundle guideline compliance
- Notable challenge: tailoring and troubleshooting two EHRs (Essentris and GENESIS) for standardization
  - Created a risk assessment for each EHR
  - Updated and validated components to correspond to functionality changes after version updates



Screenshot of PPH Risk Assessment within EHR

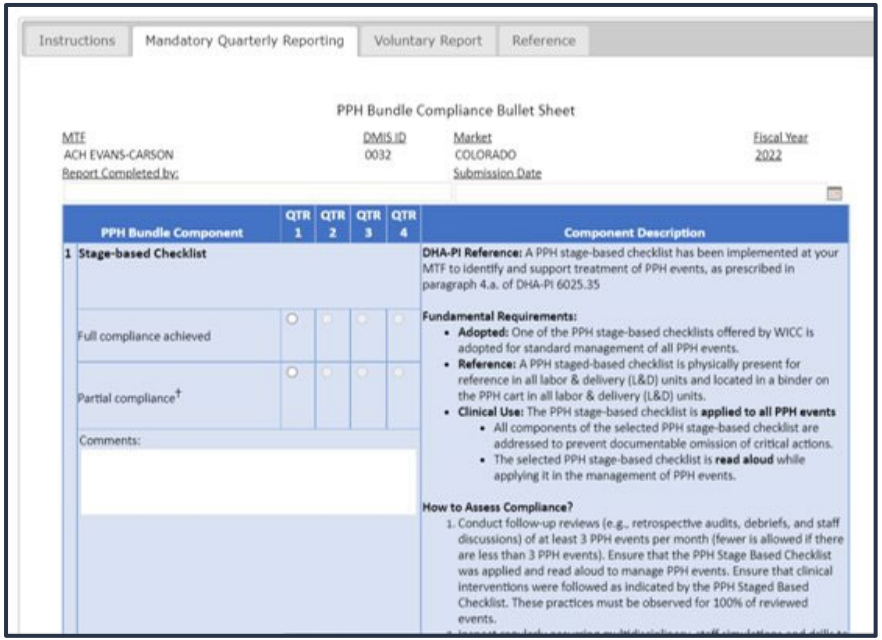
Assessment Metrics

- DHA-PI 6025.35 outlined process (compliance) and outcome metrics:

	Process Metrics (Compliance/Adoption)	Long-Term Outcome Metrics
Purpose	To assess compliance with Defense Health Agency-Procedural Instructions (DHA-PI) guidelines and identify implementation challenges	To assess the long-term impacts of standardized PPH guideline implementation on patient outcomes (severe maternal morbidity)
Metric	Compliance (self report) with the eight PPH bundle components	Outcome metrics that may be reasonably impacted by PPH bundle implementation • Incidence of PPH • Blood transfusion • ICU admission • Hysterectomy *in association with PPH*
Tracking mechanism	Reported monthly per MTF via online self report tracking tool (via Carepoint)	Tracked centrally by J-5 through administrative data and provided to MTFs at the patient level for validation and review.

PPH Compliance Metric Data Collection Tool

- Implementation status was captured across eight separate bundle components
- Champions entered compliance quarterly following specific guidance on how to assess compliance and the number of charts to audit based on number of deliveries
- Followed up with individual MTFs to validate understanding of Bundle elements and compliance benchmarks.

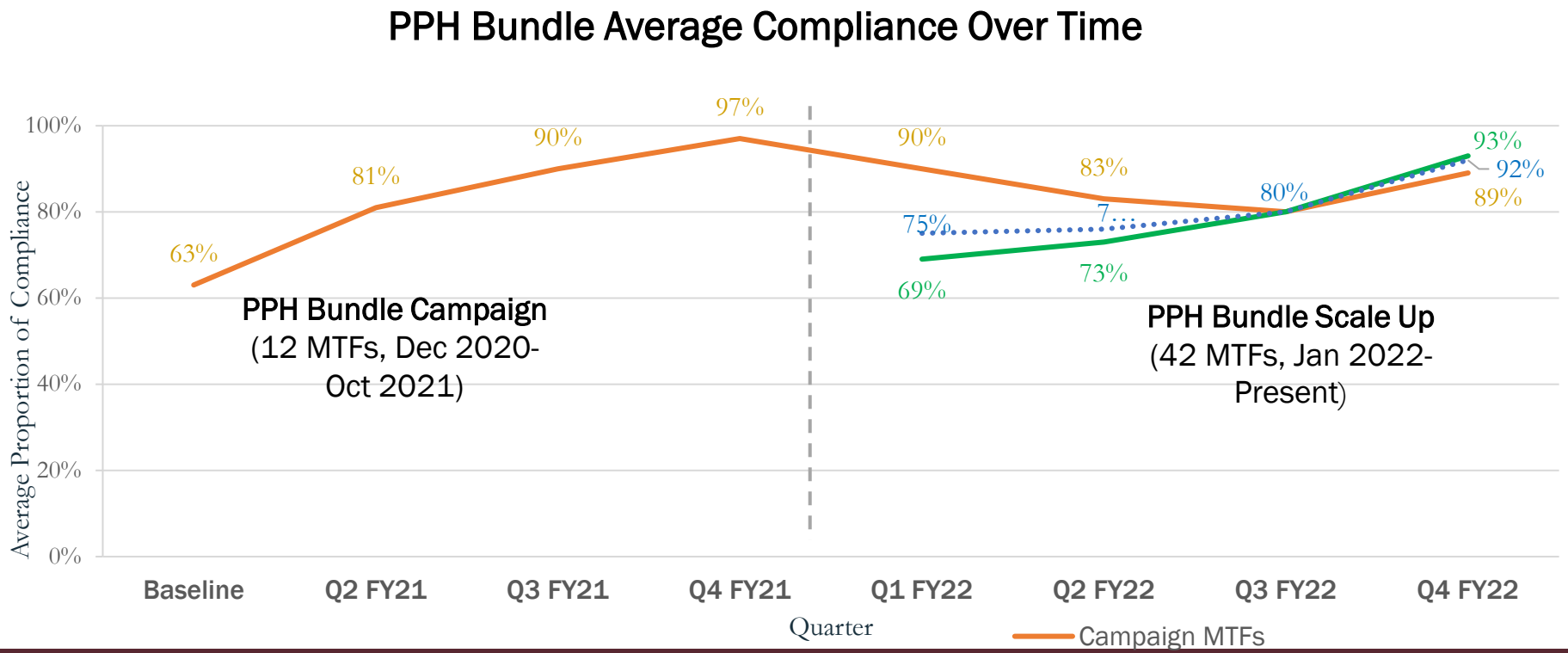


PPH Compliance Data Collection Tool (Carepoint)

PPH Bundle Compliance Tool- Modifications

	Campaign (12 MTFs)	Scale Up (42 MTFs)
Characteristics	• 5 items per component (40 items total) to support breakdown of process metrics into realistic steps • Items assessed materiel procurement, preparation, training, EHR functionality, and compliance	• Simplified response format (full or partial compliance) • Included the following for each component: DHA-PI reference, guidelines, and instructions on how to assess compliance
Benefits	• Enabled MTFs to demonstrate progress over time within a component • Enabled DHA to provide targeted support to specific challenges	• Provided clear, easy to understand language on how compliance is assessed • Easy to complete – only 8 items total
Disadvantages	• Complicated for champions to understand the analysis	• Unable to assess challenges within a component (only full or partial compliance)

PPH Bundle Compliance Scale Up



Graph of PPH bundle compliance over time

National Perinatal Information Center (NPIC)

Severe Maternal Morbidity Outcome Measures: Q4 2021 to Q3 2022

	CY 2021 (Q4)	CY 2022 (Q1)	CY 2022 (Q2)	CY 2022 (Q3)
Total MHS Deliveries	7,081	6,233	5,863	6,622
Outcome Measure	**All Direct Care Rates are Case Level Rates**			
NPIC DATABASE AVERAGES				
Severe Maternal Morbidity – overall rate	2.8%	2.7%	2.7%	2.8%
Severe Maternal Morbidity – excluding blood transfusions	1.2%	1.1%	1.1%	0.9%
SMM Among Hemorrhage Cases – overall rate	28.1%	27.4%	26.6%	29.6%
SMM Among Hemorrhage Cases – excluding blood transfusions	7.4%	8.1%	7.1%	6.4%
SMM Among Preeclampsia Cases – overall rate	9.0%	9.9%	10.4%	10.4%
SMM Among Preeclampsia Cases – excluding blood transfusions	5.1%	5.9%	6.5%	5.4%
TOTAL DIRECT CARE DELIVERIES				
Severe Maternal Morbidity – overall rate	2.8%	3.2%	2.9%	2.7%
Severe Maternal Morbidity – excluding blood transfusions	1.0%	0.9%	0.8%	0.8%
SMM Among Hemorrhage Cases – overall rate	33.0%	33.5%	33.0%	26.5%
SMM Among Hemorrhage Cases – excluding blood transfusions	7.1%	6.0%	6.3%	4.8%
SMM Among Preeclampsia Cases – overall rate	11.0%	9.1%	10.1%	12.9%
SMM Among Preeclampsia Cases – excluding blood transfusions	6.6%	5.4%	4.2%	5.4%

NPIC collects and interprets perinatal data to improve outcomes for mothers and newborns.

NPIC database showed an increase of 3% in SMM among hemorrhage in NPIC database Quarter 2 (Q2) to Q3.

Direct Care MTFs showed a **DECREASE** of 6.5% SMM among hemorrhage for the same timeframe.

Polling Question

- How does compliance with PPH Bundle potentially translate to an outcome measure such as a decrease in Severe Maternal Morbidity?
  - A. The prompt assessment, recognition, and communication of maternal hemorrhage risk, as well as timely interventions based upon risk level.
  - B. Compliance reporting over time reflects areas that MTFs need to focus on for improvement
  - C. Compliance does note translate to decreases in severe maternal morbidity

Key Drivers to Success for PPH Bundle Implementation

- **Create Feedback Loops**
  - Facilitate peer-to-peer sharing, create opportunities for problem solving, celebrate achievement and utilize MTF feedback to continuously refine processes and procedures
- **Strengthen Infrastructure**
  - Build a strategy that is adapted to the organization's long-term needs to ensure sustainment
- **Leverage EHR**
  - Enable adoption through EHR supports, providing in-the-moment prompts

Walk-in Contraceptive Services

Walk-in Contraception Services (WiCS) Overview

- Policy Background
- DHA-Administrative Instruction (AI) and Compliance Reporting
- WiCS Champions Meetings and Support for Implementation
- Compliance Reporting Nov-Jan 2023
- WiCS Implementation Challenges
- WiCS Sustainment

Walk-in Contraception Services (WiCS) Policy Background

- Started in July 2022 with the Assistant Secretary of Defense for Health Affairs (ASD HA) Memorandum, “Walk-in Contraception Services at Military Medical Treatment Facilities,”
- Directive to establish contraception services (WiCS) at every military medical treatment facility (parent MTF) for Active-Duty Service Members (ADSMs) by January 30, 2023.
- The WHCMT sent out a data call to all of the then markets asking for the number of active WiCS and where future WiCS would be established as well as the number of providers who would need long-acting reversible contraceptive (LARC) (intrauterine device and sub-dermal devices) training

WiCS DHA-AI and Compliance Reporting

- DHA-AI 6025.09, “WiCS at Military Treatment Facilities,” was published 22 September 2022
- First meeting with champions was September 2022, data call informed agenda for meeting including:
  - Highlighting established WiCS
  - Offering peer support as well as SME support
  - Sharing resources for LARC education
- Initial meetings were held every other week and after implementation January 30th the cadence changed to monthly
- Utilization data showed biological male, female and transgender males accessing care, so revisions were made to the AI to be gender inclusive.

WiCS DHA-AI and Compliance Reporting

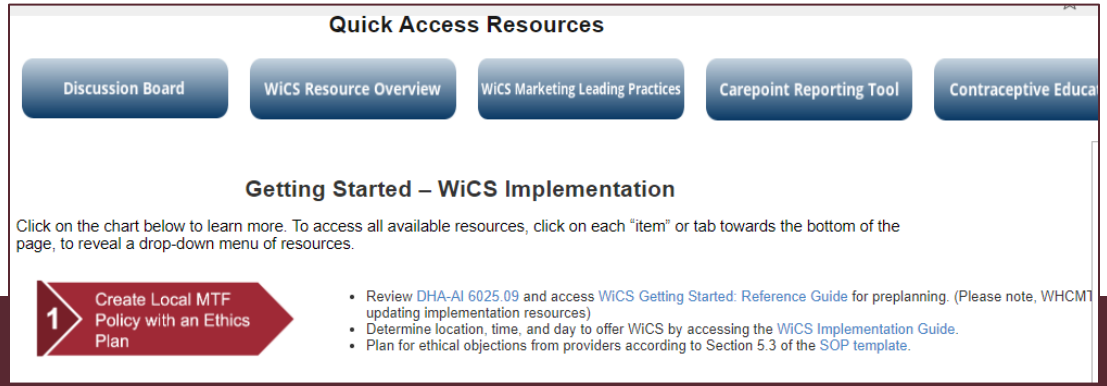
- Compliance reporting started 30 November 2022 across five components
  - **MTF Policy** (with ethics plan)-Policy describing roles and responsibilities and plan for credentialing and proctoring for LARCs
  - **Education and Training** –Standardized education for patients and staff
  - **Pregnancy Validation Process**-Either CDC pregnancy screening algorithm, urine POCT testing, or through the central laboratory
  - **Use of services**-WiCS provided weekly with providers who can provide full-scope (Short-acting, contraceptive services Short and long-acting reversible contraception (SARCs),
  - **Communications Plan**-Outreach plan through various media on the hours and location(s) of WiCS
- Compliance for WiCS was full compliance on component four “use of services” meaning that the MTF had the capability and capacity to provide weekly same-day full-scope contraception

WiCS DHA-AI and Outcomes Reporting

- Outcome measures were intended to come from a clinic code, date and time but the data on the first few months of implementation were not accurate
- March 2023 a Healthcare Operations specified that a WiCS appointment type would be used to tie contraception services offered and number of patients seen.
  - Number of WiCS patients per Beneficiary Category
  - Total number of contraceptive services by type (e.g., LARC, SARC, emergency contraception, counseling)
  - % SARCs prescribed
  - % LARCs placed

WiCS Champion Meetings and Support for Implementation

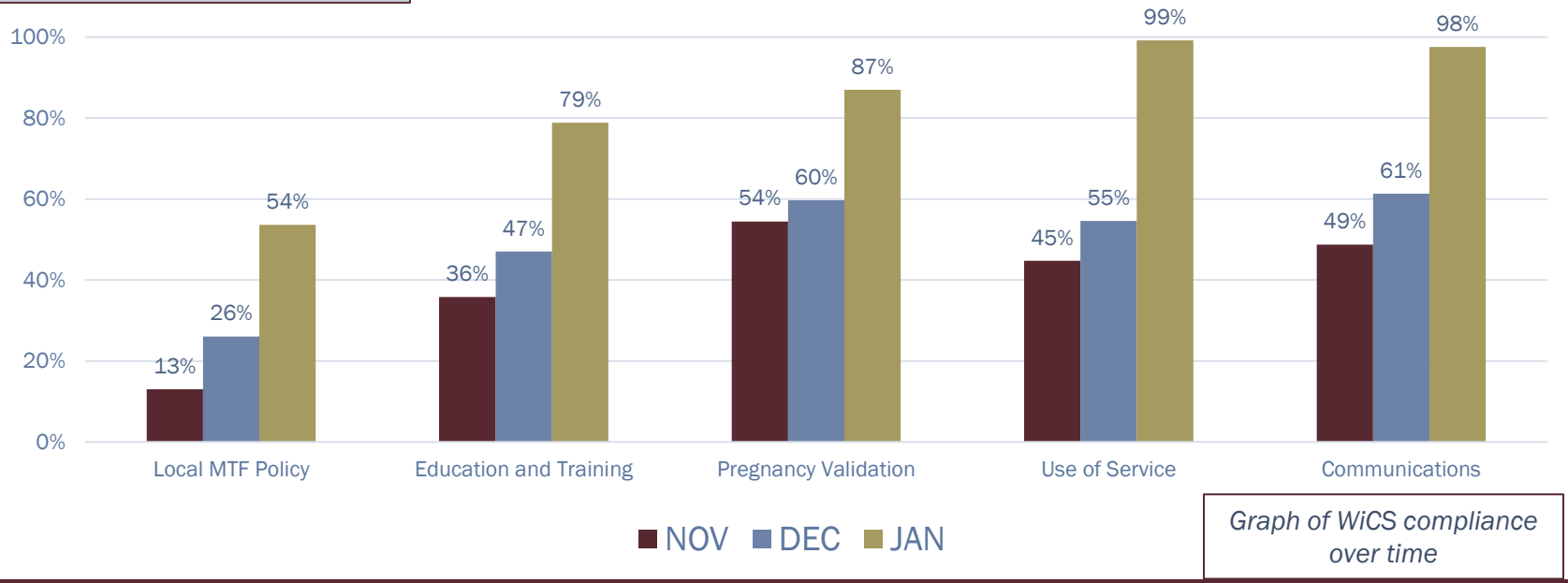
- Adopted a similar style of peer and SME support meetings as the PPH bundle to explain the implementation process
- Partnered with the Implementation Science Branch to create tools including a dedicated web page, policy templates, educational presentations for staff as well as flyers and pamphlets for patients
- Utilized a discussion board for clinicians to ask questions and share resources
- Rapid rise in compliance to implementation in only three months



Screenshot of the WiCS resources web page

Breakdown of Compliance Across Components Nov to Jan 2023

Rapid rise in compliance in a very short period of time



Graph of WiCS compliance over time

WiCS Implementation Challenges

Challenge	Assistance
Low patient utilization: Several MTF champions shared frustration that when initiating WiCS utilization of the services was low.	At champion meetings other MTFs offered that it may take 3 months for awareness among patients that the WiCS is being offered. WHCMT worked with STRATCOM to offer more communication strategies as well as contract support for templates advertising WiCS clinics
Ensuring Access for ADSMs. At larger MTFs there are different days and times for training and/or administrative time for each military unit.	WHCMT and Implementation Science Branch (ISB) team worked to create a leadership briefing template that could be utilized to inform not only MTF-leadership but the leadership of the main consumers of WiCS

WiCS Implementation Challenges (cont'd)

Challenge	Assistance
Staffing-Particularly for smaller MTFs there was difficulty with ensuring that there were enough providers with LARC insertion privileges	WHCMT partnered with vendors to ensure LARC education was available to all clinicians through individual check-ins with WiCS champions and feedback from the Data Call
Operational and workflow-Both large and small MTFs expressed difficulty with understanding workflow and integrating EHR	Implementation Science Branch assisted with creating a guide to describe all aspects of workflow and how to integrate the DHA-AI with different sizes of clinics and capabilities, as well as different EHR assists such as notes, where to chart and how and who should check in patients

WiCS Moving to Sustainment

- Goal to have all 130 MTFs with active WiCS met by 30 January 2023!
- Next hurdle is ensuring that outcome measures of contraceptive usage (SARCs, LARCs, Emergency Contraceptive [EC], and counseling) and patient number and type (active duty, dependent, etc.) are accurately accounted for in data pulls
- The WHCMT is working with the networks to ensure that the WiCS appointment type is utilized at all sites with the Genesis EHR

Key Takeaways

- Policy is necessary but not sufficient to drive change. Creating an implementation infrastructure to support adoption enables MTFs to reach established DHA targets.
- Assessing compliance regularly throughout implementation allowed DHA to address challenges as identified and provide support to champions.
- Regular reporting fostered peer coaching and maintained motivation to make progress on bundle implementation.
- Contraception is primary care and not just particular to a women's health role and LARC is inclusive in most provider credentials.
- Paradigm shift to walk-in visits from appointments and there is still work to be done to ensure that providers are credited in the same way as booked appointments with the current relative value units system.

Contact

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References

American College of Obstetrics and Gynecologists (2017). American College of Obstetrics and Gynecologists Expands Recommendations to Treat Postpartum Hemorrhage https://www.acog.org/news/news-releases/2017/09/acog-expands-recommendations-to-treat-postpartum-hemorrhage

Council on Patient Safety in Women's Health Care (2022). Obstetric hemorrhage AIM patient safety bundle. Retrieved March 17, 2022, https://saferbirth.org/wp-content/uploads/safe-health-care-for-every-woman-Obstetric-Hemorrhage-Bundle.pdf

National Perinatal Information Center (2023). Severe Maternal Morbidity Report. https://npic.org

TRICARE Newsroom. (2021, November 24). How Health Care for New Mothers is Improving Across the MHS. Retrieved March 21, 2022, https://newsroom.tricare.mil/Local-News/Article/2854375/how-health-care-for-new-mothers-is-improving-across-the-mhs

World Health Organization. (2017). World Health Organization recommendations on prevention and treatment of postpartum hemorrhage and the WOMAN trial. Retrieved March 2, 2022, https://www.jhpiego.org/wp-content/uploads/2020/07/Updated-WHO-PPH-recommendations_Widmer_FINAL.pdf

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