

Secret Stories – The Impact of Miscarriage and Abortion on Warfighter Readiness

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Background

Readiness is the fourth aim of the Defense Health Agency (DHA) and the one that differentiates military medicine from its civilian counterparts. As such, factors impacting the readiness of active duty service members (ADSMs) are a key focus for military research and surveillance programs. In 2019, with the Defense Health Agency poised to assume control of all military treatment facilities (MTFs) and several years after the landmark decision to open all occupations to female ADSMs, examinations of issues affecting the readiness of female ADSMs across the Armed Forces are critical to helping the DHA achieve its aims.

Research has shown that mental health and reproductive health issues are key concerns in military medicine, both in practice and research. In 2018, mental health disorders and pregnancy and delivery-related issues were the first and second most common reasons for hospitalization among all ADSMs, accounting for more than half of all hospitalizations.¹ An analysis of existing research related to the health of female ADSMs concluded that obstetric and gynecological (OB/Gyn) and psychological health issues were the two major health areas requiring additional research. OB/Gyn topics accounted for 15 of the 26 total gaps identified.²

Pregnancy loss, including miscarriage and abortion, can be traumatizing for women. The situation is intensified by the higher rate of unintended pregnancies among female ADSMs.³ Pregnancy complications increase risk for depression, and research shows that one in two women who have a miscarriage experience some form of subsequent psychological morbidity⁴, such as grief, anxiety, and depression.⁵ Furthermore, research shows that due to the perception of pregnancy, miscarriage and abortion in the military⁶ ADSMs feel concerned about stigma, confidentiality, and potential negative career effects.⁷ Thus, they might be hesitant to discuss their experiences or seek necessary care.

Service women face deployments affecting the availability of health care and receive their health care through the Military Health System (MHS). Even after the MHS has undergone a number of policy changes related to reproductive health⁸, the issues related to female reproductive health remain a critical issue in military medicine.⁹ The current study assessed the impact of pregnancy-related events on subsequent mental health care utilization among female ADSMs.

Methods

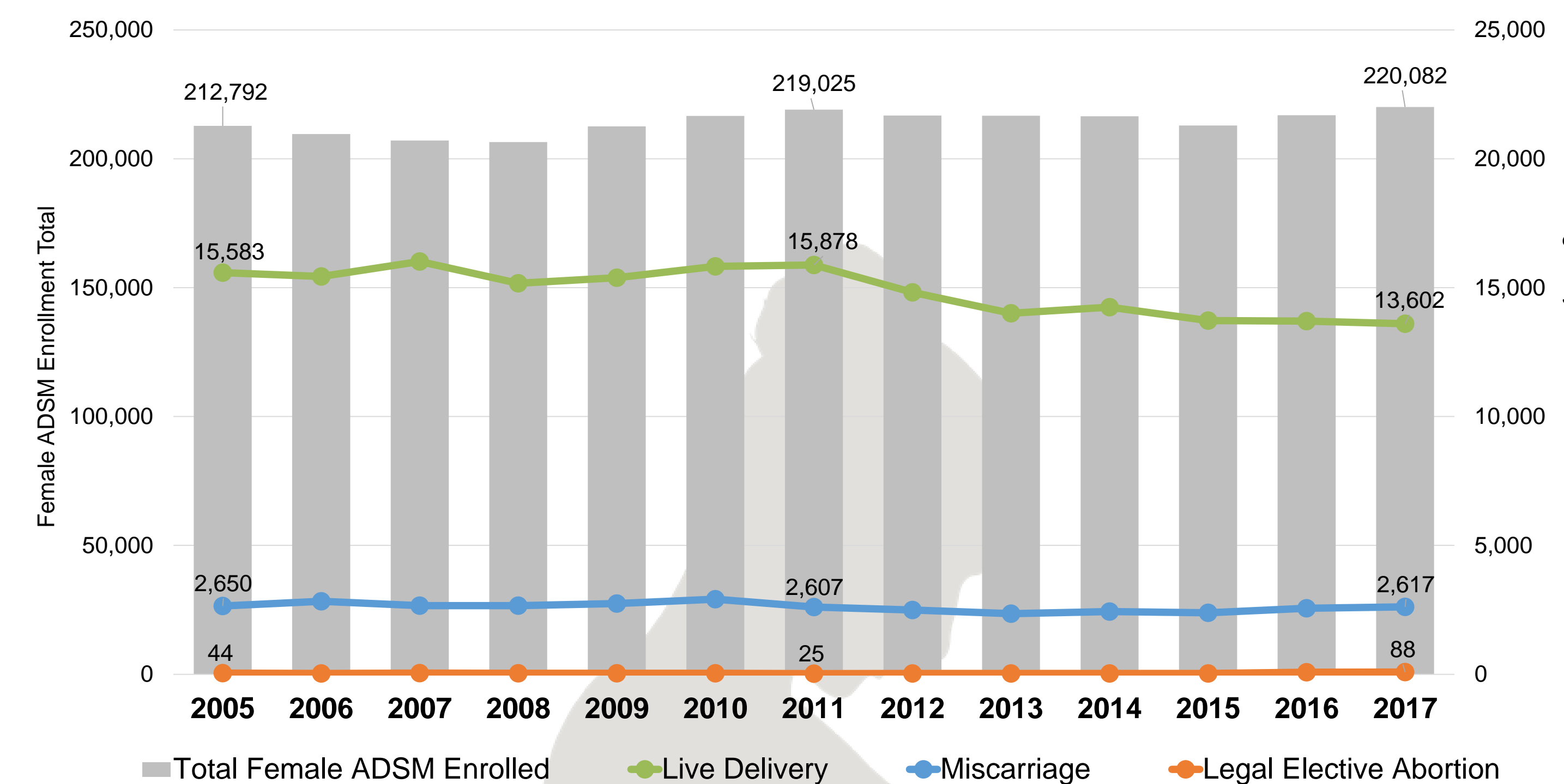
We utilized administrative medical records in the Military Health System Data Repository (MDR) from January 2005 to December 2017. We identified all female ADSM who had a medical encounter in either the direct care system (MTFs) or the purchased care system (civilian facilities, TRICARE accepted). For these ADSMs, we identified those with any pregnancy-related event: miscarriage, legal elective abortion, live delivery, or delivery loss.

These events were identified using International Classification of Disease, Ninth or Tenth Revision (ICD-9/10) codes in all available diagnostic positions of the encounter record.¹⁰ Individuals were classified into groups by the pregnancy-related event that occurred first chronologically in the surveillance period (the index event).

To assess mental health care utilization after a pregnancy-related event, we identified a subset of this cohort to follow for 12 months after the index event for both general mental health care and for selected conditions. Those eligible for follow-up had an index event during 2013-2017 and were continually enrolled in TRICARE for the full 12 months following the index event. Average time (in months) to subsequent mental health related encounter, if any, was also computed.

Findings & Discussion

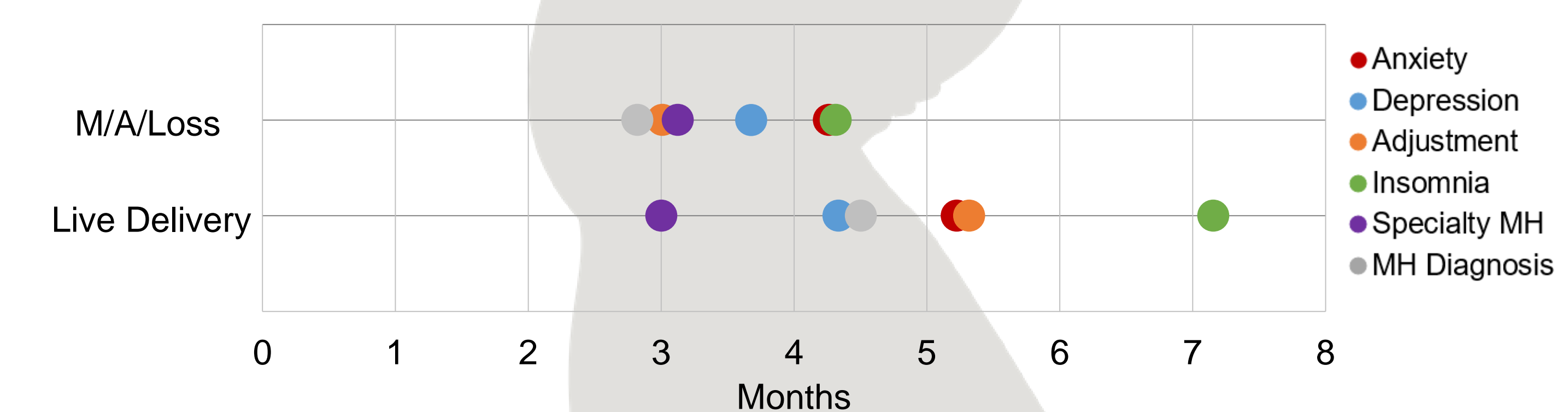
Trends in Live Delivery, Miscarriage, and Legal Elective Abortions



Among female ADSM, the number of live deliveries remained around 15,000 per year before beginning to decline in 2011 to about 13,600 live deliveries in 2017. Despite this decline, the number of miscarriages per year has remained steady at about 2,600 events across the entire time span of 2005-2017. Female ADSM enrollment numbers have also remained steady between 2011-2017, with a general increase over the 12 year period.

In 2017, about 17% of pregnancy related events in the MHS were related to miscarriage and legal elective abortion.

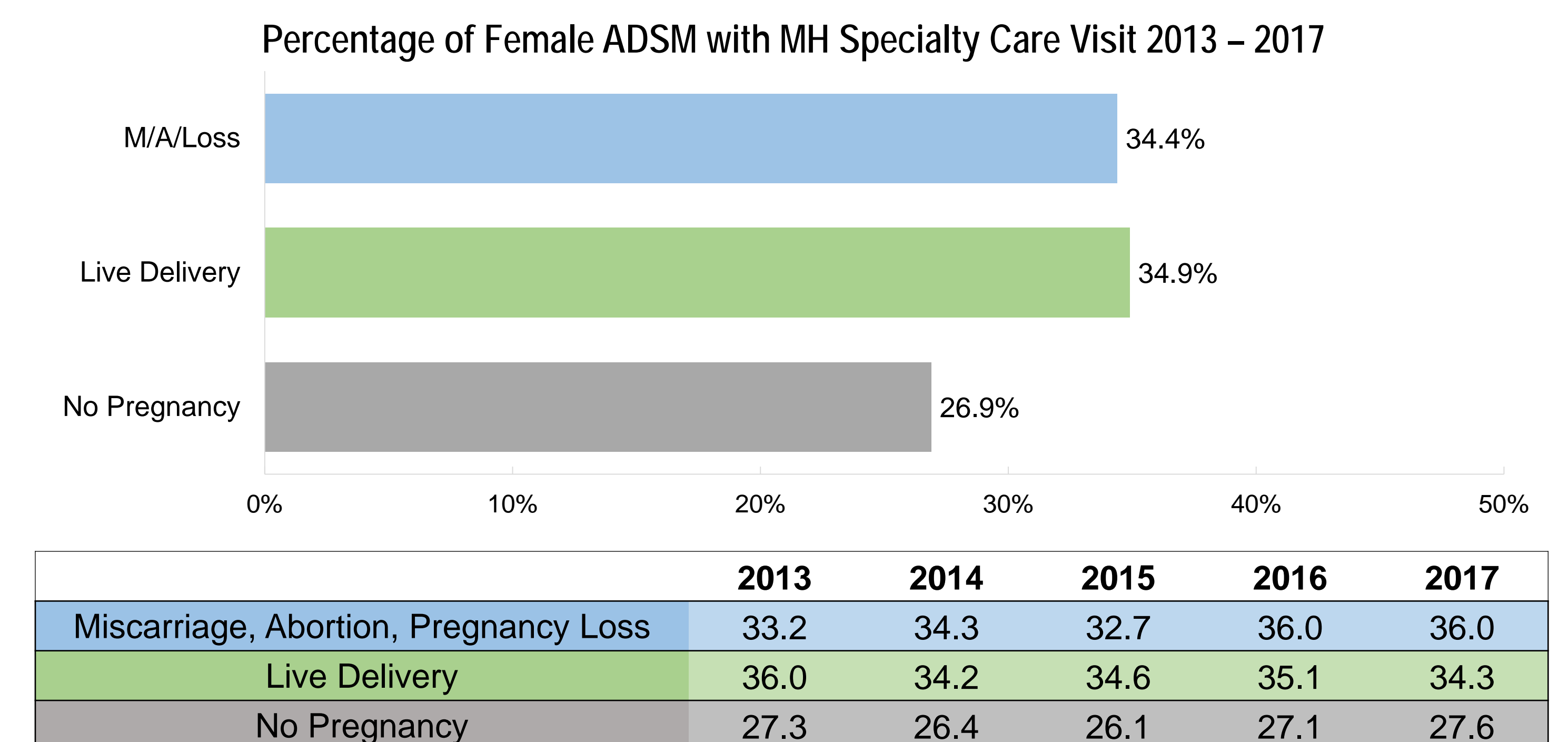
Average Time to First Encounter with a Mental Health Condition after Pregnancy-Related Event, 2013-2017



To better understand the utilization of mental health services after a pregnancy event among female ADSM we followed a subset for 12 months after their index event. The latest diagnosis on average was for insomnia at 7.16 months in the live delivery category after index event.

Women in the M/A/Loss category appear to receive a diagnosis code in the mental health series (MH Diagnosis point) earlier than the Live Delivery group on average. Both groups utilize specialty mental health services around the same time after their pregnancy event (MH Specialty point, around 3 months).

Pregnancy-Related Events and Mental Health Care Utilization



On average from 2013-2017, about 35% of female ADSM that had either a Live Delivery or Miscarriage/Abortion/Delivery Loss utilized specialty mental health in the year following their pregnancy event. However, of those that had no pregnancy event in 2013-2017, 27% utilized specialty mental health care.

Given that mental health specialty utilization appears to increase in the year following pregnancy-related events, providers treating female ADSMs, especially in MH settings, should monitor prior pregnancy-related histories to understand potential stressors stemming from these events.

Summary and Next Steps

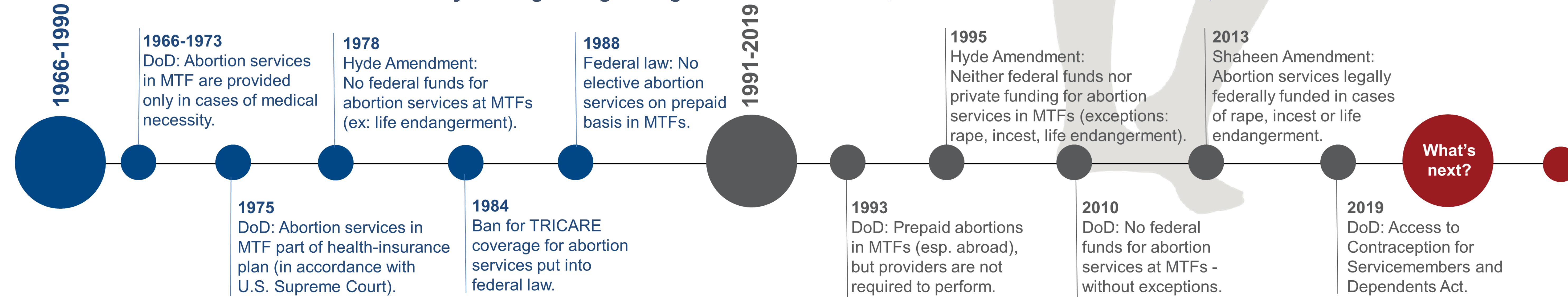
Summary:

- Pregnancy rates have decreased slightly in recent years among female ADSMs, while miscarriage rates have remained fairly steady over the past decade.
- Any MH specialty care utilization is higher among female ADSMs with pregnancy-related events than those without pregnancy-related events, but pregnancy loss did not increase the likelihood of MH utilization above and beyond successful delivery.
- Elective abortions are rarely diagnosed in the MHS, resulting in lower rates than the general U.S. population.¹¹ At the same time unintended pregnancy rates among female ADSMs are higher³, suggesting that medical records underestimate the true number.

Next Steps:

- More research is needed in order to understand the experiences female ADSMs have with miscarriage, abortion and pregnancy loss and the impact of those events on readiness. Specifically:
 - This study found that many female ADSMs with any pregnancy-related event experience multiple pregnancy-related events (data not shown). Further efforts should assess how these events may jointly impact health and readiness.
 - This study did not assess frequency of MH care utilization or patterns in utilization. Further research in this area would help to understand if and how female ADSMs are referred for care, and what types of services are most utilized by this population.
 - Understanding future military-related events among this cohort, such as deployments and separations, would help identify potential areas where female ADSMs might benefit from additional support.

Policy Changes regarding U.S. Code § 1093 (Abortion Services in the DoD)



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