



PRAMS

PREGNANCY RISK ASSESSMENT MONITORING SYSTEM

PRAMS Data to Action/Success Stories Template

This template is intended for use by PRAMS sites to describe the impact of their data collection and dissemination activities. The form aims to collect **detailed** information in a format that is conducive to creating a success story. Each section in the template is followed by a self-check, which outlines relevant criteria that should be addressed in that section.

1. DATA TO ACTION/SUCCESS STORY TITLE:

Influenza Vaccination Among Pregnant and Postpartum Women in Wyoming: The Importance of the Prenatal Care Provider

2. PROBLEM OVERVIEW: BRIEFLY DESCRIBE THE PUBLIC HEALTH PROBLEM THAT WAS ADDRESSED IN THIS DATA TO ACTION EXAMPLE/SUCCESS STORY.

Pregnant women have an increased risk of morbidity and mortality from seasonal influenza due to the changes that occur during pregnancy. Some women may be concerned about receiving the influenza vaccination before or during their pregnancy, but when providers discuss the importance of vaccination, women are more likely to get vaccinated. The data brief created updates and educates Wyoming providers about the importance of influenza vaccination before and during pregnancy and stresses the importance of their role in vaccination compliance.

3. PRAMS DATA USED: LIST THE TOPICS AND YEARS OF PRAMS DATA THAT WERE USED

WY PRAMS data 2012-2015 were used to create the data brief entitled: *Influenza Vaccination Among Pregnant and Postpartum Women in Wyoming: The Importance of the Prenatal Care Provider* (2017 Influenza Issue Brief).

Two questions on the survey (Phase 7) were included:

1. "During the 12 months before the delivery of your new baby, did a doctor, nurse, or other health care worker offer you a flu shot or tell you to get one?"
2. "During the 12 months before the delivery of your new baby, did you get a flu shot?"



4. PARTNERS AND PLAYERS: WHO WERE THE COLLABORATORS?

The MCH Epidemiology Unit partnered with the Wyoming Immunization Unit to create the *2017 Influenza Issue Brief*. Writing was a collaborative effort between Wyoming PRAMS staff and the Wyoming Immunizations Unit. Also included in the partnership was the Maternal and Child Health Unit, who were notified of the publication and had early input regarding the content.

5. DATA TO ACTION/SUCCESS STORY NARRATIVE: WHAT HAPPENED?

The last time a data brief about influenza immunization during pregnancy was created using PRAMS data was in 2011. That publication was also completed in collaboration with Maternal and Child Health Epidemiology, Immunizations, and Maternal and Child Health. It was sent to all Wyoming obstetric providers.

There were three key messages to convey to providers through the updated *2017 Influenza Issue Brief*.

1. Highlight changes in vaccination levels before and during pregnancy over the four-year period (WY PRAMS 2012-2015).
2. Stress the importance of influenza vaccination discussion with women thinking about pregnancy and those who are receiving prenatal care.
3. Address concerns and update providers regarding an article published in *Vaccine* (2017)¹ that raised concerns about a link between immunization and an increased risk of spontaneous abortion.

1. From 2011 to 2015, Wyoming vaccination rates for influenza increased, particularly for women who receive the vaccine *during* their pregnancy. The proportion of women who received the vaccination *before* pregnancy held steady over the four-year period, averaging around 11.3 percent. However, the rate of vaccination *during* pregnancy increased from 28.1% (2012) to 44.5% (2015); an increase of 58%.

2. Wyoming PRAMS data (2015) demonstrated that health care providers play a critical role in the acceptance of influenza vaccine. Eighty-four percent (84%) of postpartum women said that their provider either offered or recommended that they get a flu shot. Women who discussed vaccination with their provider were four times more likely (63.6% versus 15.8%) to be vaccinated as compared with women who were not recommended or offered the vaccine.

3. A study by Donahue et al., published in the journal *Vaccine* (2017)¹, reported an increased risk of spontaneous abortion for women who received two consecutive annual vaccines during 2010-11 and 2011-12; both of which included a 2009 pandemic H1N1 component. The authors reported that the risk occurred in the 28 days after receipt of the second vaccination.

The Wyoming *2017 Influenza Issue Brief* stated that the study did not quantify the risk of miscarriage and did not prove the flu vaccine was the cause of the miscarriage. Further, it



noted that a national investigation was in progress to study the results provided by Donahue and colleagues, and that no changes were made to vaccination recommendations at this time. Finally, the document included resources developed by the Centers for Disease Control and Prevention (CDC) about this topic.

¹ Donahue JG, Kieke BA, King JP et al. Association of spontaneous abortion with receipt of inactivated influenza vaccine containing H1N1pdm09 in 2010-11 and 2011-12. *Vaccine*. 2017; 35(40); 5314-5322.

6. OUTCOMES & IMPACT: HOW IS LIFE DIFFERENT AS A RESULT OF THE ACTIVITY? THIS IS THE MOST CRITICAL PIECE OF THE STORY. *SHORT-TERM AND *INTERMEDIATE OUTCOMES MUST BE DOCUMENTED.

A. *SHORT-TERM OUTCOMES: This includes early outputs of the process such as relevant publications, meetings with stakeholders and other MEASURABLE products or activities:

Outcome #1: Distribution of the 2017 Influenza Issue Brief to all of the Obstetric and Obstetric/Gynecologic practices in Wyoming (39 mailed, 30 confirmed delivered) occurred in November of that year. The primary focus of the mailing was the *2017 Influenza Issue Brief*, accompanied by an introductory letter. Additional materials included the publication “*What to Expect Guide to Immunizations*” by Heidi Murkoff, materials from Wyoming’s Tobacco Program about smoking and pregnancy, and select March of Dimes educational brochures. Ordering information was also included.

Outcome #2: The Immunizations Unit will monitor ordering of the brochures included in the November 2017 mailing. While a specific target goal was not set, an increase in ordering by Wyoming providers would indicate short term success.

Outcome #3: The Wyoming Immunization Unit, MCH Epidemiology Unit, and Maternal and Child Health Unit were pleased with this activity and are creating a more cohesive partnership as they plan for more collaboration in the future.

B. *INTERMEDIATE OUTCOMES: This includes RESULTS of the short-term outcomes—what did those products or activities lead to? For example, a media campaign was launched, legislation was introduced and passed, a new program was funded, a program was changed to better address client needs, etc.

Outcome #4: Discussion is on-going about a potential press release summarizing the messages of the *2017 Influenza Issue Brief*. While WY PRAMS data from 2012-2015 was included in the document, it would be ideal to include data from 2016 too. PRAMS staff are checking on the feasibility of this opportunity.

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C. LONG-TERM OUTCOMES: This includes the measurable changes in the behaviors or health outcomes of the target population. Such changes may be difficult to directly attribute to the efforts described in the intermediate impact, but efforts should be made to monitor and evaluate the activities that are implemented.

Outcome #5: The Immunization Unit will be joining the PRAMS Advisory Committee to explore additional questions (such as DTAP vaccination, barriers to vaccination, etc.) for the Phase 9 survey.

Outcome #6: The number of women who report that they receive the influenza immunization before and during pregnancy, will continue to increase in 2018. One limitation of this outcome measure is the delay in PRAMS data to states. Since our most recent year is 2015, it is difficult to use PRAMS data to set a target goal for 2018. We cannot expect to see changes due to this activity in 2016 or 2017, but may in the 2018 data.

7. STORY ABSTRACT: PROVIDE A SHORT 1-2 PARAGRAPH SUMMARY OF YOUR STORY AND THE OUTCOMES

PRAMS data was used to educate and inform all Wyoming OB/GYN's about changes in influenza vaccination levels before and during pregnancy. Since 2012, Wyoming has observed a 58% increase in the number of women who report receiving the vaccine during their pregnancy (28.1% in 2012 versus 44.5% in 2015). The number of women who report receiving the vaccine before pregnancy has remained constant at about 11.3% over the same period.

The resulting publication *Influenza Vaccination Among Pregnant and Postpartum Women in Wyoming: The Importance of the Prenatal Care Provider* (November 2017) also highlighted the critical role held by prenatal providers in acceptance of the influenza vaccine. Women who discussed vaccination with their provider were four times more likely (63.6% versus 15.8%) to be vaccinated as compared with women who were not recommended or offered the vaccine.

The success of this collaboration between Wyoming PRAMS staff, the Wyoming Immunization Unit, and the Maternal and Child Health Unit has been the catalyst for additional projects, making Wyoming a healthier place for mothers and babies.

8. CHECK IF ANY OF THE FOLLOWING ARE BEING SUBMITTED TO COMPLEMENT YOUR STORY: (CHECK ALL THAT APPLY)

- Testimonials
- Quote from Partner/Participant
- Sample of Materials Produced
- Press Release
- Promotional Materials
- Photo(s) of Project
- Video/Audio Clip
- Other (Explain:)

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**9. HOW WOULD YOU CATEGORIZE THE DATA TO ACTION EXAMPLE/SUCCESS STORY?
(CHECK ALL THAT APPLY)**

- Appropriation of funds
- Policy change
- New program started
- Existing program revised
- Increased visibility for an organization, program or issue
- Capacity building of an organization or group
- Other Obstetric Provider Support and Education

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