2016

Michigan PRAMS

Pregnancy Risk Assessment Monitoring System,
Maternal Child Health Epidemiology Section,
Lifecourse Epidemiology and Genomics Division,
Michigan Department of Health and Human Services

[PRAMS PHASE 8 STATE-ADDED SECTION: PRIORITIZATION PROCESS REPORT]

Documenting the development of the Phase 8 state-added section of Michigan's Pregnancy Risk Assessment Monitoring System (PRAMS) in conjunction with the Centers for Disease Control and Prevention (CDC).

PRAMS Phase 8 Prioritization Process Report: Executive Summary

PRAMS is an ongoing survey project administered by the Michigan Department of Health and Human Services (MDHHS) and the CDC. It collects self-report information of public health importance from new mothers of infants across the state of Michigan. Phase 7 of the survey remained in the field through March 31, 2016. The survey is revised approximately every 3 years. The CDC determines 80 percent of the survey's content; the other 20 percent is left up to the state. For the Phase 8 revision, diverse stakeholders were engaged in the interest of drafting an innovative, effective survey instrument that could be used to most effectively ***maintain public health surveillance; inform relevant policy on the state and national levels; equip public health programs to be more relevant and effective; and facilitate research.***

A facilitator was contracted to lead the PRAMS Advisory Board and the extensive group of stake holders through the prioritization process. First, select members of the PRAMS Steering Committee convened to establish the prioritization process and establish selection criteria for topic/question suggestions. The Board identified selection criteria and goals for included topics. They decided the best questions would:

- Address **EQUITY**
- Inform **POLICY**
- Examine health and wellness across the **LIFECOURSE**
- Address **SOCIAL DETERMINANTS OF HEALTH**
- Help **FAMILIES**
- Improve public health **PROGRAMS**

A diverse stakeholder group gave input through a series of planning meetings and correspondence over the course of two months. Stakeholders represented Maternal Child Health (MCH) professionals from state and local public health programs, MCH advocates, researchers, and non-profit professionals from across Michigan. Their topic recommendations were compiled.

Stakeholders ranked the recommended topics according to the selection criteria, creating **a priority list** that reflected the ranking process. Issues of food, housing, and transportation security were prominent among the priority topics. The PRAMS team from MDHHS used the priority list to compile a draft of questions for the Phase 8 PRAMS and submitted it to the CDC. These questions were evaluated internally and within the respondent population before question and response language was finalized. The Michigan PRAMS team and CDC completed several revisions before the draft was finalized in early 2016. The finalized draft went into the field for data collection in April 2016, sampling from Michigan's first 2016 births.

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Introduction

PRAMS is an ongoing public health surveillance project administered in the state of Michigan in collaboration with the CDC, and the MDHHS. The PRAMS survey is sent to a sample of the state's mothers of new infants between the ages of 3 and 9 months of age. It assesses numerous indices of wellbeing, health of both mother and infant, as well as diverse social determinants of health. It is part of a national effort to reduce infant mortality and adverse birth outcomes by providing useful information for developing, evaluating, and improving intervention programs. These data are used to monitor progress toward national and state pregnancy-related health objectives, including birth outcomes. The survey is administered by the MCH Epidemiology Section within the Lifecourse Epidemiology and Genomics Division at MDHHS.

Michigan is one of 44 PRAMS-participating states, and has been continuously administering PRAMS, or a PRAMS-like survey since CDC launched PRAMS in 1987. The survey is redrafted every three to five years and is put into the field for data collection in phases. The CDC determines 80 percent of the survey, and it is standard across all participating states. The remaining 20 percent of each state's survey is developed by the state itself in conjunction with the CDC's Survey Development Workgroup. The Michigan PRAMS team spent much of 2015 developing the draft of the Phase 8 state-added section. Phase 8 PRAMS will be in the field from April 2016 until March of 2019.

The PRAMS survey is uniquely equipped to assess critical health measures and useful data on the maternal/infant population in Michigan. This data is an invaluable resource, as it:

- Maintains public health surveillance
- Informs relevant policy on the state and national levels
- Equips public health programs to be more relevant and effective
- Facilitates research

The MCH Epidemiology Section considers the PRAMS to be a valuable tool in the public interest, and as such, it is important to engage stakeholders from the areas of public health programs, policy, research, and epidemiology to create as valuable an instrument as possible. This report will

document the prioritization process used in the state of Michigan to redraft the PRAMS state-added section for Phase 8, the input that was provided, the identified priority topics, question drafting and revision, and ultimately the selected topic questions. Additionally, it will outline why certain identified priorities were not added to the Phase 8 draft.

Prioritization Process

Establish Prioritization Process

The CDC requires PRAMS states to have a Steering Committee—an interdisciplinary group of 10 to 15 members that can assist in topic-specific question guidance, data analysis and dissemination. Select members of the PRAMS Steering Committee led the prioritization process with the help and guidance of Dr. Julia Heany, a facilitator from the Michigan Public Health Institute (MPHI). The original meetings served to identify the **current value and use of the PRAMS in Michigan**. Committee members considered and responded to the following questions:

- **How is information collected through PRAMS used in Michigan?**
- **How well do you think the PRAMS is being used?**
- **What information collected by the PRAMS do you feel is most important?**
- **What has the PRAMS helped to achieve for moms and babies in Michigan?**
- **What criteria should be used to decide if a question is a high priority for the PRAMS?**

Their conclusions served to develop a strong sense of the roles PRAMS currently plays in Michigan's public health sector, and established the context for future innovation for the survey.

Develop Selection Criteria

After situating Michigan PRAMS in its context within the state, committee members were tasked with **solidifying a set of criteria by which individual topics would be evaluated**. The committee wanted to maximize PRAMS' potential to benefit Michigan's maternal and child populations, and it was clear that this could be done through different avenues, including public health intervention, health policy, and expanded research opportunities. To this end, the members determined that the topics and questions would be evaluated based on their ability to:

- Address **EQUITY**
- Inform **POLICY**
- Examine health and wellness across the **LIFECOURSE**
- Address **SOCIAL DETERMINANTS OF HEALTH**

- Help **FAMILIES**
- Improve public health **PROGRAMS**

This criteria served as a guide for subsequent stages of the state-added section development.

Determine Priority Topics

All stakeholders were invited to a meeting at MDHHS to provide suggestions for Phase 8 question topics. Representatives from public health programs, state-level and academic epidemiology, health policy advocates, clinicians, and non-profit organizations were represented. In the meeting stakeholders were asked to consider the current and past content of the PRAMS survey, the current climate and challenges surrounding MCH, and make suggestions for important topics that may or may not have been covered.

Topics were categorized as they were shared. All participants were given the opportunity to vote on the seven issues they saw as most pressing in MCH for Michigan through a sticker voting system. From this categorization and voting, a mind map of topics was generated *(Figure 1, Page 7).*

Finally, a survey was created and distributed to stakeholders. They were asked to rank each question topic on the established six criteria: the ability to address equity; inform policy; examine health and wellness across the lifecourse; address social determinants of health; meet family needs; and improve public health programs. Stakeholders were asked to score topics on a scale of 1 to 5 for each criterion, with 1 for "does not meet criterion" and 5 for "fully meets criterion." **A sum of averages was calculated for each topic and considered along with the voting from the stakeholder meeting, establishing a prioritization rank for each suggested topic.**

TOPIC CATEGORIES

Stakeholders identified 86 topics in the following 22 categories:

Mental Health
Demographics
Substance Use/Abuse
Prenatal Health
Breastfeeding
Vaccination Status
Cultural Competence
Oral Health
Trauma/Toxic Stress
Postpartum Healthcare
Preconception Health
Community Resources
Maternal Insurance
Childcare
Maternal Weight
Infant Status
Sleep Behaviors
Domestic Violence
Resilience/Social Support
Health Literacy
Contraception
Pregnancy Intention

As an example, the survey scoring for the topic "Unmet Needs" is provided (Figure 2, page 8), along with the survey results for all topics (Figure 3, page 8).

Select and Refine Questions

Results from the prioritization survey were provided to the PRAMS team at MDHHS. They were tasked with determining what, if any, existing and validated research instruments were already being used to measure the identified priorities of the stakeholder group. This required some clarification with certain stakeholders, as well as close reading of the academic literature in public health, medical and behavioral health science, as well as social science research.

Validated instruments were available that addressed many of the identified priorities including infant sleep, resilience, partner support, and adverse childhood experiences (ACES). Previous research findings and the associated literature informed the crafting of original questions when there was a lack of available instruments. In this way, a set of questions that reflected the priority list was created.

Once questions were selected, **the PRAMS team evaluated each question using an instrument called the Question Appraisal System (QAS)-99** (Willis, G.; Lessler, J., 1999). The purpose of the QAS-99 is to assist questionnaire designers in evaluating survey questions to find and fix existing problems before surveys go into the field. The QAS-99 was designed by the Research Triangle Institute on behalf of the CDC for use in another state-administered, population-based research project called the Behavioral Risk Factor Surveillance System (BRFSS). **Question appraisal using the QAS-99 ensures that questions are clear, easy to answer, do not rely on underlying assumptions, and are not" double barreled—"or accidentally asking two questions at once.** This helped the PRAMS team refine several of the questions, making them clearer and simpler to understand and answer.

Figure 1. Priority Topic Mind Map Generated PRAMS' Stakeholder Meeting

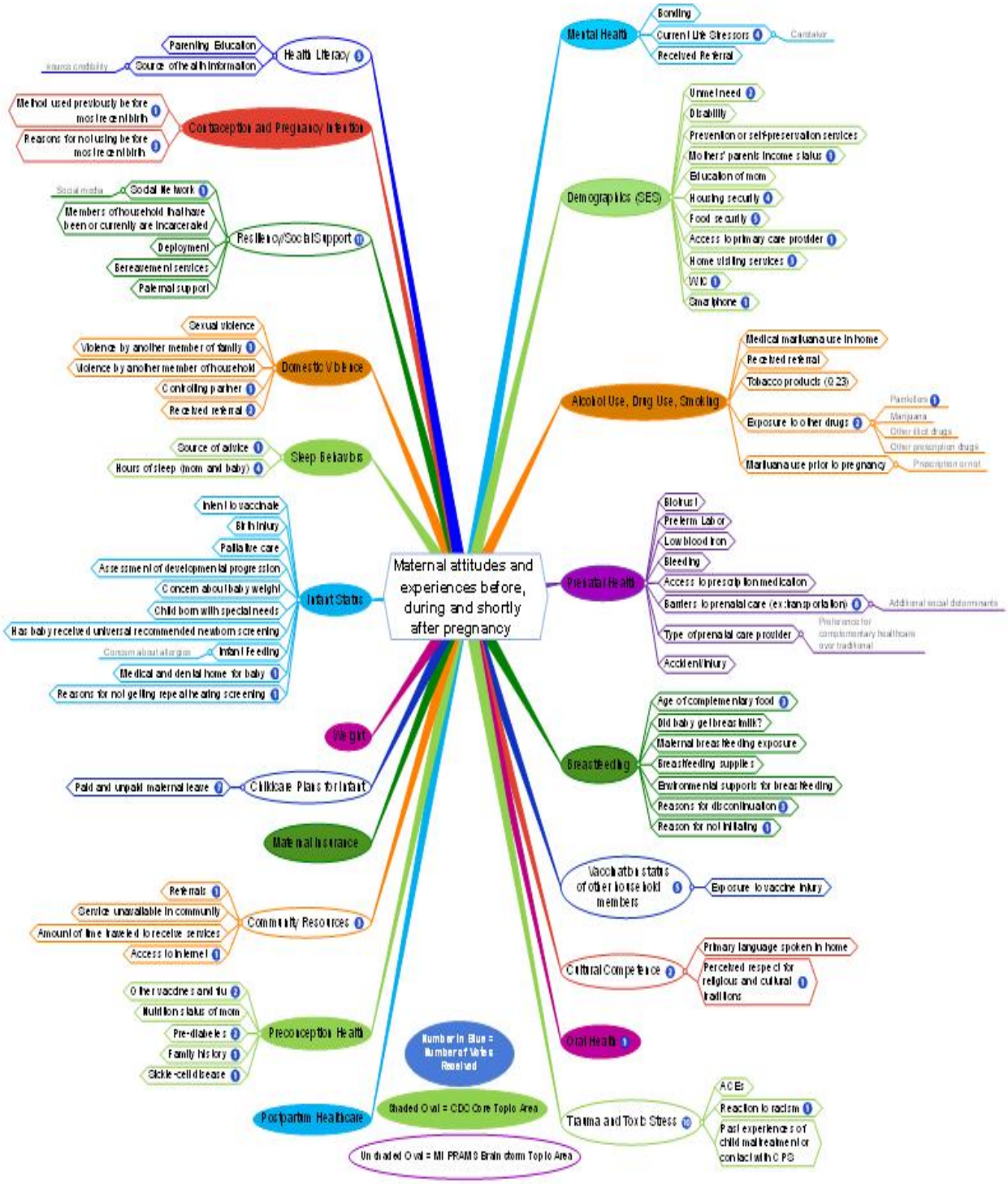

Figure 2. Survey Scoring for the Topic "Unmet Needs"

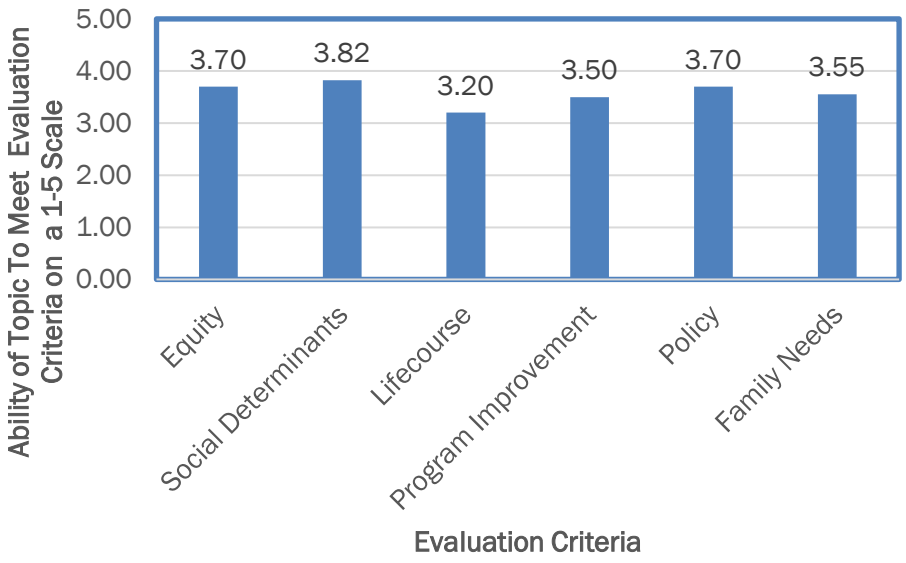

Figure 3. Survey Results

Topic Prioritization Survey Sum of Means	
N	86
Range	13.66-21.76
Mean	18.21
Median	18.45
Standard Deviation	1.92
Variance	3.67

Once the questions were drafted and evaluated using the QAS-99, a convenience sample of **44 mothers of infants evaluated the questions for understanding, ease of answering, and recall problems.** Participants were also given the opportunity to suggest improvements to questions and response options. The majority of the questions revealed no problems in testing, though some **suggestions were incorporated into the final versions of the state-added questions.**

Submit Draft

The CDC provided three opportunities for draft submission, input, and revision in mid- to-late 2015. CDC protocols provided guidance on the required question evaluation and testing, and support staff

from CDC provided input on question placement, wording, and consistency. **The final draft was agreed upon in December, 2015.**

The submission process requires states to send CDC a list of all the questions they want to add to the new phase of the survey, along with a prioritization document ranking questions from highest to lowest. In Michigan's case, this priority ranking was determined by stakeholder engagement.

It is understood that not all questions included in the original draft will be included. Michigan asked for 49 additions to the core survey—either as entire questions, or as added response options. Of those, 26 were included in the final survey draft.

As of the drafting of this report, Michigan's survey content has been finalized and is being incorporated into the PRAMS Integrated Data System (PIDS)—PRAMS' operational platform—at the CDC. It was being tested in PIDS to ensure that data entry will be smooth and successful. Both print and phone versions of the finalized survey are in the field.

Michigan's Phase 8 Priorities

Stakeholders were responsive and invested in the topics that would be included in the Phase 8 survey. A list of standard questions is provided to states by the CDC from which approved questions can be extracted. These questions can be added to any state's survey without the requisite field or flow testing required for original questions. The standard list is a helpful resource for states as they develop their state-added sections.

Many of Michigan PRAMS' stakeholders were interested in topics that have not been included in CDC's standard list. This occurs sometimes when states decide to ask questions that evaluate state-specific programs—such as Michigan evaluating knowledge of the Michigan BioTrust for Health in Phase 7 PRAMS. The stakeholder group, however, had a broad interest in psychosocial indicators, in particular, that were novel for PRAMS, including resilience, stressors, ACES, and partner support.

Identified Priorities

All recommended topics used in the ranking process are included below.

- *Food security*
- *Unmet needs*
- *Housing security*
- *Barriers to prenatal care*
- *Reasons for breastfeeding discontinuation*
- *Current life stressors*
- *Cultural competence/perceived respect*
- *Paid/unpaid maternity leave*

- *Reasons for not initiating breastfeeding*
- *Medical/dental home for baby*
- *Adverse Childhood Events (ACEs)*
- *Smoking in the household*
- *Parenting education*
- *Access to breastfeeding supplies*
- *Education of mom*
- *Exposure to other drugs (opioids)*
- *Reactions to racism*
- *Social support*
- *Resilience*
- *Reasons for not using contraception*
- *Maternal/infant hours of sleep*
- *Intent to vaccinate*
- *Michigan BioTrust for Health*
- *Income measures*
- *Maternal/infant bonding*

Deferred Questions and Future Directions

Once the priority list had been established, the PRAMS team was tasked with finding appropriate questions to address the priority topics. During this phase of survey development, it was determined that some of the topics would not be included. Each identified priority topic was considered by the PRAMS team, and evaluated based on whether:

- **The desired information was available from *another data source*,** especially as linkable data to PRAMS responses. The PRAMS team prioritized the elimination in measurement redundancy. For example, there was no need to ask about the mother's level of education, since it is already provided on the birth certificate.
- **The PRAMS was the *best place* to solicit this data.** Was it more appropriate to gather the information in WIC clinics, or another health survey such as the Behavioral Risk Factor Surveillance Survey (BRFSS)?
- **Phase 8, in 2016, was the *best time* to solicit this data**, considering factors such as previous and current versions of the survey, available response data, as well as the social and political landscape effecting certain topics.

This evaluation was informative, and the team decided that some topics were best covered by other surveillance and that the timing for soliciting data was not best for some topics. **Topics were not included if they were currently being measured by the Phase 7 survey, and there was no identified need for longitudinal measurement.**

Part of the purpose of documenting the state-added section development was to leave a blueprint for future survey development. The PRAMS team learned a great deal in the process of prioritizing and developing questions; the lessons learned will be informative to future phases' development. In

some cases, there is reason to revisit specific topics in future phases of the survey. In other cases, there are broad lessons that could inform future survey development. With that in mind, the PRAMS team recommends considering the following when Phase 8 draws to a close and a new state-added section is again being developed:

Recommendations

- **Perception of the Michigan BioTrust for Health:** In the Phase 7 survey, mothers were asked if they were aware of the BioTrust for Health and how they learned about it. In the future it would be more informative to assess their: a) perception of the BioTrust as either a net positive or negative, and b) whether they chose to opt in or opt out of participation. Additionally, it was determined that an even more thorough module of questions related to the BioTrust had been asked in a recent iteration of the BRFSS. The program will have been in place as an opt-in option for a decade by time Phase 9 is implemented. Considering the active opt-in nature of the BioTrust, it would be helpful to know the perception of the biobank among mothers in the PRAMS sample.
- **Paid-unpaid maternity leave modules:** Based on guidance from stakeholders, Michigan PRAMS decided to forgo including maternity leave questions in the Phase 8 survey. Phase 7 included a module of relevant questions, but at the time of the prioritization process, the data were unavailable. These data are available now and provide a picture of Michigan's mothers' experiences with maternity leave. From a policy standpoint, the PRAMS team concluded that responses assessing the maternity leave experience would be more helpful in Phases 7 and 9 than Phases 7 and 8.
- **Trustworthiness/ expertise of health information sources:** With health advice being readily available through diverse communication channels, it would be helpful and informative to know where mothers are getting their health information and what sources they consider to be trustworthy and expert. This would be especially helpful for program and health communication planning—particularly among populations who are not adopting best practices in multiple volitional behaviors that effect maternal and infant public health, such as vaccines or safe sleep.
- **Adverse Childhood Experiences module:** Stakeholders were very interested in the prevalence of (ACES among Michigan mothers. To that end, Michigan PRAMS reformatted ACES questions that had been included in the state's BRFSS in 2013. During the iterative editing process, CDC voiced concern that ending the survey with these questions would be insensitive. There was no flexibility in placing the module elsewhere, so CDC offered to

include a similar module of questions that assess the experience of certain difficult experiences of childhood that have been in the field on California's Maternal Infant Health Assessment Survey (MIHA)—an instrument very similar to PRAMS. A noticeable difference is that the set of questions that *is* included in the Phase 8 survey measures experiences that happen prior to the age of 13, while the traditional ACES module looks at childhood experiences as having happened prior to age 18. Additionally, while Michigan PRAMS acknowledges that using California's questions will be informative, and clearly better than not asking anything relative to difficult experiences in childhood, being able to compare ACES scores and findings relevant to ACES may be more valuable in the future. Survey developers may determine that it is more valuable to keep the current module of questions for Phase 9, or to eliminate questions of this type altogether, but this is something that should be revisited in future survey development.

- Phase 8 PRAMS' comment section: After the Phase 8 stakeholder engagement had concluded, Michigan PRAMS staff undertook a qualitative analysis of the comment section of 2011 respondents for a project unrelated to survey development. The prompt for the comment section is located at the top of the survey's last page. It says:

> Please use this space for any additional comments you would like to make about your experiences around the time of your pregnancy or the health of mothers and babies in Michigan.

An unintended finding of that examination was that the stakeholders' suggestions closely reflected the information the mothers themselves had wanted PRAMS staff to know. The qualitative responses are not included in CDC's data and reports for PRAMS; qualitative analysis can be more challenging than traditional quantitative analysis. Still, finding that stakeholders' insights merely echoed information mothers had shared several years before confirmed that the survey itself may be the best place to look in the future when establishing priorities. The PRAMS team recommends thorough qualitative analysis as an ongoing activity through the duration of Phase 8 with the intention of informing the Phase 9 prioritization process.

Phase 8 State-Added Questions

The following pages contain the survey content that the State of Michigan successfully added to the Phase 8 PRAMS on behalf of state-wide MCH partners, as well as a rationale statement for each question.

Q35.

This question is about things that may have happened during the *12 months before* your new baby was born. For each item, check No if it did not happen to you or Yes if it did. (It may help to look at the calendar when you answer these questions.)

a. A close family member was very sick and had to go to the hospital
b. I got separated or divorced from my husband or partner
c. I moved to a new address
d. I was homeless or had to sleep outside, in a car, or in a shelter
e. My husband or partner lost their job
f. I lost my job even though I wanted to go on working
g. My husband, partner, or I had a cut in work hours or pay
h. I was apart from my husband or partner due to military deployment or extended work-related travel
i. I argued with my husband or partner more than usual
j. My husband or partner said they didn't want me to be pregnant
k. I had problems paying the rent, mortgage, or other bills
l. My husband, partner, or I went to jail
m. Someone very close to me had a problem with drinking or drugs
n. Someone very close to me died
o. I had to live with a friend or family member (state-added option)

Rationale: This question addresses diverse stressors from the preconception period that could impact mothers and babies. Michigan chose to add option "o," mother having to live with a friend or family member, as another measure of stress. It also serves as a proxy measure for housing insecurity, an idea Michigan PRAMS also attempts to capture through question 63, where we ask about mothers' having "safe" and "consistent and stable" housing. Housing security/insecurity was an issue of high importance to MCH public health practitioners across the state.

Q4.

During the *3 months before* you got pregnant with your *new* baby, did you have any of the following health conditions? For each one, check No if you did not have the condition and Yes if you did.

a. Type 1 or Type 2 diabetes (**not** gestational diabetes or diabetes that starts during pregnancy)
b. High blood pressure or hypertension
c. Depression
d. Asthma
e. Anemia (poor blood, low iron)

f. Heart problems
g. Epilepsy (seizures)
h. Thyroid problems
i. PCOS (polycystic ovarian syndrome)
j. Anxiety

Rationale: This multi-item question assesses preexisting conditions in mothers that may have long-term health implications and increase risk for poor outcomes for mothers and babies.

Q13

When you got pregnant with your new baby, were you trying to get pregnant?

- o No
- o Yes

Q14.

When you got pregnant with your new baby, were you or your husband or partner doing anything to keep from getting pregnant? Check all that apply.

- o I didn't mind if I got pregnant
- o I thought I could not get pregnant at that time
- o I had side effects from the birth control method I was using
- o I had problems getting birth control when I needed it
- o I thought my husband or partner or I was sterile (could not get pregnant at all)
- o My husband or partner didn't want to use anything
- o I forgot to use a birth control method
- o Other→ Please tell us: _____

Rationale: The PRAMS survey is the only place that has consistently measured intendedness and avoidance of pregnancy in Michigan. The continuity of these questions is very important to Michigan PRAMS' programmatic partners and identified as a priority in the planning process.

Q16.

What method of birth control were you using when you got pregnant? Check all that apply.

- o Birth control pills
- o Condoms
- o Shots or injections (Depo-Provera)
- o Contraceptive implant in the arm (Nexplanon or Implanon)
- o Contraceptive patch (OrthoEvra) or vaginal ring (NuvaRing)
- o IUD (including Mirena, ParaGard, Liletta, or Skyla)
- o Natural family planning (including rhythm method)
- o Withdrawal (pulling out)
- o Other→ Please tell us: _____

Rationale: This question measures trends in contraceptive methods, as well as the effectiveness of birth control methods. Additionally, Family Planning program staff have excellent data on contraceptive choices among clients, but PRAMS provides population-based estimates that are informative in a different way.

Q19.

Did any of these things keep you from getting prenatal care when you wanted it? For each item, check No if it did not keep you from getting prenatal care or Yes if it did.

a. I couldn't get an appointment when I wanted one
b. I didn't have enough money or insurance to pay for my visits
c. I didn't have any transportation to get to the clinic or doctor's office
d. The doctor or my health plan would not start care as early as I wanted
e. I had too many other things going on
f. I couldn't take time off from work or school
g. I didn't have my Medicaid or M.O.M.S. card
h. I didn't have anyone to take care of my children
i. I didn't know that I was pregnant
j. I didn't want anyone else to know I was pregnant
k. I didn't want prenatal care

Rationale: Measuring the barriers to prenatal care will inform intervention design to facilitate increased access to and utilization of prenatal health care services.

Q23.

During *your most recent* pregnancy, did you get a Tdap shot or vaccination? A Tdap vaccination is a tetanus booster shot that also protects against pertussis (whooping cough).

o No
o Yes
o I don't know

Rationale: This question will measure the prevalence of Tdap vaccination during pregnancy, as well as evaluate the effectiveness of messaging that encourages mothers to receive Tdap while pregnant. It will also inform future interventions, and provide useful information in the event of a pertussis outbreak.

Q36.

In the *12 months before* you got pregnant with your new baby, did any of the following people push, hit, slap, kick, choke, or physically hurt you in any other way? For each person, check No if they did not hurt you during this time or Yes if they did.

a. My husband or partner
b. My ex-husband or ex-partner
c. Another family member
d. Someone else

Q.37.

During your most *recent pregnancy*, did any of the following people push, hit, slap, kick, choke, or physically hurt you in any other way? For each person, check No if they did not hurt you during this time or Yes if they did.

a. My husband or partner
b. My ex-husband or ex-partner
c. Another family member
d. Someone else

Rationale: Physical abuse increases risk for adverse birth outcomes as well as depression in the postpartum period. These questions will measure the prevalence of physical abuse by source.

Q44.

What were your reasons for not breastfeeding your new baby? Check all that apply.

- o I was sick or on medicine
- o I had other children to take care of
- o I had too many household duties
- o I didn't like breastfeeding
- o I tried but it was too hard
- o I didn't want to
- o I went back to work
- o I went back to school
- o **My baby was in the hospital** (state-added response)
- o Other-→ Please tell us:_____

Rationale: Michigan's MCH stakeholders want to know what the primary barriers to breastfeeding currently are in Michigan. Being physically separated from a baby who was still in the hospital could be a significant barrier. Adding this item could provide insight into the way hospitals and NICUs impact breastfeeding.

Q47.

What were your reasons for stopping breastfeeding? Check all that apply.

- o My baby had difficulty latching or nursing
- o Breast milk alone did not satisfy my baby
- o I thought my baby was not gaining enough weight
- o My nipples were sore, cracked, or bleeding or it was too painful
- o I thought I was not producing enough milk, or my milk dried up
- o I had too many other household duties
- o I felt it was the right time to stop breastfeeding
- o I got sick or I had to stop for medical reasons

- o I went back to work
- o My partner did not support breastfeeding
- o My baby was jaundiced (yellowing of the skin or whites of the eyes)
- o Other-→ Please tell us:_____

Rationale: Assessing the significant barriers to continued breastfeeding, especially among mothers who do not breastfeed through the first year of their infants' lives, will inform intervention, messaging, and education design to increase breastfeeding best practices in our state.

Q62.

During the *12 months before* your new baby was born, how often did you feel that when you went to get health care you were treated worse than people of other races or cultures?

- o Never
- o Sometimes
- o Usually
- o Always
- o I did not get health care then

Rationale: Michigan has asked about mothers' responses to racism for some time, but has not asked specifically about the experience of racism in the health care setting, which has the potential to be a deterrent to prenatal, postpartum, and well-child health care utilization. Additionally, a mother's perception of racism has been shown to be a predictor of low birth weight in African Americans.

Dominguez, T. P.; Dunkel-Schetter, C. ; Glynn, L. M. ; Hobel, C. ; Sandman, C. A. (2008, March). Racial differences in birth outcomes: The role of general, pregnancy, and racism stress. *Health Psychology, 27*(2), 194-203.

Q63.

During your most recent pregnancy, which of the following statements about basic needs applied to you? For each item, check No if it was not true or Yes if it was.

a. I had affordable, reliable transportation
b. I skipped meals or ate less because there wasn't enough money for food
c. I had safe housing
d. I had consistent and stable housing
e. My house or apartment was too crowded
f. I could keep basic utility services on (heat, water, lights)
g. I had access to a telephone when needed
h. I had another basic needs that were not met

Please tell us: _____

Rationale: MCH leaders in Michigan are concerned by what unmet needs exist in the population of pregnant women. While there are many things that are being measured—such as chronic conditions, prenatal care utilization, drug exposures—the public health professionals wanted to know if there were things affecting the everyday lives of women that left them at a material disadvantage while pregnant. They were primarily concerned with food and housing security. Transportation and phone

access were also identified as vital to everyday function. All of these responses reflect diverse sources of stress during pregnancy. Response "h" seeks to identify if mothers had other basic needs that our stakeholder group did not identify during survey development. **This is the question of highest priority among Michigan PRAMS' stakeholders, and has great potential to guide intervention design in our state.**

Q64.

Which of the following people spend time taking care of your new baby when you are at school, work, or appointments? Check all that apply.

- o My husband or partner
- o Baby's grandparent
- o Other close family member or relative
- o Friend or neighbor
- o Babysitter, nanny, or other child care provider
- o Staff at a day care center
- o Other-→ Please tell us: _____
- o My baby is always with me while I am at school, work, or appointments

Rationale: This question will create a sense of the community members that is helping to raise Michigan's babies, as well as where babies spend their time. It will further serve to illustrate the social support around mothers in terms of childcare, while also illustrating which populations—besides mothers—should be targeted with public health messaging efforts, such as those on safe sleep practice. Finally, it will illuminate the findings of questions 73 and 74 that address husband/partner support.

Q65.

How many hours and minutes in the last week was your new baby in an enclosed space, such as a room or vehicle, with someone who was smoking:

___Hours ___ Minutes

Rationale: The current PRAMS questions addressing smoking do not assess infants' second-hand smoke exposure. Knowing that infants can be exposed in diverse environments, with or away from mothers and regardless of mothers' smoking patterns, we hope to measure infants' exposure to inform intervention and messaging design.

Q66.

What are your plans for vaccinating your new baby? Check ONE answer.

- o My baby will be vaccinated the way my doctor recommends
- o My baby will get every vaccine, but at different times than my doctor recommends
- o My baby will get only some of the recommended vaccines
- o My baby will not get vaccines

Rationale: Michigan does not currently measure vaccine intention among mothers. This question will illustrate what percentage of our maternal population intends to vaccinate as recommended, as well as show what percentage of mothers are already questioning the prescribed schedule, selected vaccines, or vaccines in general. These responses will be of great utility to public health program

partners as they seek to increase vaccination rates state-wide, and study vaccine intention in relationship to actual vaccination rates.

Q67.

Please mark each statement as true or false for your baby.

a. My baby received breast milk from a source other than me.
b. My baby has a doctor, nurse, or medical practice where he or she is seen on a regular basis.
c. My baby will see a dentist by his or her first birthday.

Rationale: This question was crafted to capture three questions of interest from the stakeholder group for the purposes of intervention and advocacy. First, MCH advocates wanted to know what percentage of infants were getting breastmilk from a source other than the mother—either another mother or a milk bank. The second response option seeks to capture what percentage of infants already have a "medical home." Finally, the final option will assess what percentage of infants are being seen by a dentist as early as recommended.

Q68.

In the *last week*, how much time, on average, did you spend sleeping each night?

- o 0-3 hours
- o 4-6 hours
- o 7-8 hours
- o 9+ hours

Q69.

In the *last week*, how many times, on average, did you wake up at night?

- o ____Times
- o I don't know

Rationale: These two questions have been included to provide novel information about the sleep patterns of mothers of infants in our state. Data measuring maternal sleep during a child's infancy were not available in the literature. It will be instructive to measure these rates in relationship to many variables measured in the PRAMS survey. Michigan MCH stakeholders are curious about the relationship between mothers' sleep patterns/deprivation, and safe sleep practice. The relationship between quantity and quality of maternal sleep is also interesting in relationship to many other health and psychosocial measures in the survey.

Q70.

During any of the following time periods, did you use marijuana or hash in any form? For each time period, check No if you did not use then or Yes if you did.

During the 12 months before I got pregnant
During my most recent pregnancy
Since my new baby was born

Rationale: Medical marijuana is legal in Michigan, in addition to its common use as a recreational drug. This question seeks to measure at what points mothers may have used marijuana and

exposed their infants to its use. Examining exposure during the preconception period, pregnancy, and postpartum, we hope to examine this question's relationship to other variables in the survey and birth file, and measure whether rates of maternal marijuana use change over time.

Q71.

During any of the following time periods, did you use prescription pain relievers, such as hydrocodone (Vicodin), oxycodone (Percocet), or codeine? For each time period, check No if you did not use then or Yes if you did.

a. During the 12 months before I got pregnant
b. During my most recent pregnancy
c. Since my new baby was born

Rationale: Prescription drug abuse is increasing in our state, particularly the use of opioid painkillers. Studies of opioid exposure during pregnancy suggest increased risk for adverse birth outcomes. Our state's substance abuse epidemiologists are tracking the use of many drugs by pregnant women, but not the opioid class of drugs. This question has great utility to inform public health practitioners about maternal and infant opioid exposures, their effects, and help inform intervention design.

Ailes, E.; Dawson, A.; Lind, J.; Gilboa, S.; Frey, M.; Broussard, C.; Honein, M. (2015, January 23). Opioid prescription claims among women of reproductive age--United States, 2008-2012. *Morbidity and Mortality Weekly Report*, 37-41.

Q72.

The following statements are about the way you handle life events. Please check all that are true for you most of the time.

o I tend to bounce back quickly after hard times
o I have a hard time making it through stressful events
o It does not take me long to recover from a stressful event
o It is hard for me to snap back when something bad happens
o I usually come through a difficult time with little trouble
o I tend to take a long time to get over set-backs in my life

Rationale: A brief resilience scale was included to measure resilience among our survey population. Many psychosocial factors were of great importance to our stakeholder group, and there was particular interest in the relationship between mothers' adverse exposures during childhood, and its relationship to maternal resilience and birth outcomes.

Q73.

This question is about your husband or partner, who may or may not be the father of your new baby. Please choose the statement that best describes the current living arrangement.

o My husband or partner lives with me all of the time
o My husband or partner lives with me some of the time
o My husband or partner does not live with me
o I do not have a husband or partner

Q74.

The following statements are about your husband or partner, who may or may not be the father of your baby, and the support they provide you at this time. For each one, check No if it is not true most of the time or Yes if it is true.

a. My partner is someone I can count on for financial support if I need it
b. My partner is someone I can talk with about things that are important to me
c. My partner is someone who is affectionate toward me
d. My partner is someone who helps me care for my child(ren)
e. My partner is someone who understands how I am feeling
f. My partner is someone who talks with me and spends time with me
g. My partner is someone whom I can count on
h. My partner is someone who does things with me

Rationale: Partner support increases oxytocin and decreases risk for hypertension, maternal depression, and maternal and infant distress. It is also a primary measure of social support that is of great interest to MCH professionals in Michigan.

Dennis, C.L.; Ross, L. (2006, November). Women's perceptions of partner support and conflict in the development of postpartum depressive symptoms. *Journal of Advanced Nursing*, 588-599.

Stapleton, L.R.T.; Schetter, C. D.; Westling, E.; Rini, C.; Glynn, L. M.; Hobel, C. J.; Sandman, C.A. (2012, June). Perceived partner support in pregnancy predits lower maternal and infant distress. *Journal of Family Psychology*, 453-463.

Q75.

Some of these things might happen to people during childhood. Childhood experiences may be important. **Please tell us if any of these things ever happened to you from the time you were born through age 13.** (Yes/No responses)

a. Most of the time, I had an adult who believed in me and who I could count on to help me
b. A parent or guardian I lived with got divorced or separated
c. We had to move because of problems paying the rent or mortgage
d. Someone in my family or I went hungry because we could not afford enough food
e. A parent or guardian got in trouble with the law or went to jail
f. A parent or guardian I lived with had a serious drinking or drug problem
g. I was in foster care (removed from my home by the court or child welfare agency)

Q76.

Thinking back to your childhood through at 13, how often was it hard for your family to pay for basic needs like food or housing?

o Very often
o Somewhat often
o Not very often
o Never

Rationale: Stakeholders were very interested in the role ACES play in maternal and infant health, as they are predictive of many adverse health outcomes in adulthood including substance abuse, chronic diseases, increased high-risk volitional behaviors, and fetal death. While the ACES module was not included in our Phase 8 survey, we have included a similar module of questions that have

appeared on California's Maternal and Infant Health Assessment for several years. Maternal exposures to these difficult events in childhood will be measured and compared to measures of current maternal health and birth outcomes.

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