

The Michigan Plan for Appropriate Tailored Healthcare in Pregnancy Prenatal Care Recommendations.

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01 10 2021 138 4 489112 593 602 09 10 2024 23 05 2025 23 05 2025 17 04 2026 This file is available for text mining. It may also be used consistent with the principles of fair use under the copyright law. OBJECTIVE: To describe MiPATH (the Michigan Plan for Appropriate Tailored Healthcare in pregnancy) panel process and key recommendations for prenatal care delivery.

We conducted an appropriateness study using the RAND Corporation and University of California Los Angeles Appropriateness Method, a modified e-Delphi process, to develop MiPATH

recommendations using sequential steps: 1) definition and scope of key terms, 2) literature review and data synthesis, 3) case scenario development, 4) panel selection and scenario revisions, and 5) two rounds of panel appropriateness ratings with deliberation. Recommendations were developed for average-risk pregnant individuals (eg, individuals not requiring care by maternal–fetal medicine specialists). Because prenatal services (eg, laboratory tests, vaccinations) have robust evidence, panelists considered only how services are delivered (eg, visit frequency, telemedicine).

The appropriateness of key aspects of prenatal care delivery across individuals with and without common medical and pregnancy complications, as well as social and structural determinants of health, was determined by the panel. Panelists agreed that a risk assessment for medical, social, and structural determinants of health should be completed as soon as individuals present for care. Additionally, the panel provided recommendations for: 1) prenatal visit schedules (care initiation, visit timing and frequency, routine pregnancy assessments), 2) integration of telemedicine (virtual visits and home devices), and 3) care individualization. Panelists recognized significant gaps in existing evidence and the need for policy changes to support equitable care with changing practices.

The MiPATH recommendations offer more flexible prenatal care delivery for average-risk individuals.

National guidelines for prenatal care visits in the United States have remained unchanged since 1930, recommending a uniform 12–14 in-person visits for uncomplicated pregnancies.¹ Although many prenatal services (eg, vaccinations, imaging) are evidence-based, we lack robust data on how to administer these services. 1 – 4 Further, despite the acknowledged connection between adverse social and structural determinants of health and poor pregnancy outcomes, adoption of screening for and management of these conditions has evolved only slowly. 5

The coronavirus disease 2019 (COVID-19) pandemic forced rapid changes in prenatal care delivery, including reduced visit schedules and telemedicine. 6 – 10 Simultaneously, the pandemic reinforced the significant negative effects of adverse social and structural determinants of health on health care access and outcomes, particularly for pregnant individuals. 11 – 14 These experiences highlight the need to revisit several aspects of prenatal care delivery, including: 1) prenatal visit schedules (care initiation, visit timing and frequency, routine pregnancy assessments), 2) integration of telemedicine (virtual visits and home devices), and 3) care individualization based on medical conditions and social and structural determinants of health.

The American College of Obstetricians and Gynecologists (ACOG) previously recognized revisiting prenatal care delivery guidelines as an organizational priority (personal communication among ACOG, the Society for Maternal-Fetal Medicine, and the University of Michigan, November 2019). 15 , 16 Thus, with significant changes necessitated by the pandemic, ACOG expeditiously convened a national stakeholder panel, in collaboration with the University of Michigan, to reconsider prenatal care delivery using RAM (the RAND-UCLA Appropriateness Method), a modified Delphi approach. 17 The objective of this manuscript is to report the methodology and results of this appropriateness study, MiPATH (the Michigan Plan for Appropriate Tailored Healthcare in pregnancy) panel, including recommendations for prenatal care delivery for average-risk individuals.

RAM was selected over other guideline processes for this panel because of its rigor, evidence-based methodology, and ability to incorporate existing evidence and expert opinion to arrive at clinical recommendations. 17 RAM is a modified Delphi process that has been used to develop guidelines for diverse topics, including cesarean delivery criteria, 18 indications for adult and pediatric intravenous catheters, 19 , 20 and appropriate medication prescribing. 21 , 22 This method was particularly advantageous, because panel leaders recognized that many topics (eg, telemedicine, frequency of monitoring blood pressure) lacked a robust evidence base in the established literature. The study received institutional review board exemption from the University of Michigan (HUM00188505).

The goal of MiPATH was to generate recommendations for components of prenatal care delivery across common average-risk pregnancy conditions. To accomplish this goal, we completed six phases based on RAM:

Expert panel selection, engagement, and scenario revision

Expert panel introduction and appropriateness rating (round 1)

Expert panel meeting and appropriateness rating (round 2)

In RAM, interventions are determined to be appropriate if their benefits (eg, reduction in morbidity, reassurance) outweigh the harms (eg, treatment side effects, increased anxiety), irrespective of cost. RAM concludes with a series of statements regarding the appropriateness of various interventions in routine practice. An additional advantage of this approach is that it does not require consensus, but rather focuses on minimizing artifactual disagreement by ensuring raters review and apply the same evidence to clearly defined scenarios. Areas of persistent uncertainty provide guidance for future research.

MiPATH addressed the appropriateness of multiple components of prenatal care delivery for average-risk pregnant populations. Panel leaders (A.F.P., C.M.Z., W.B., M.T., S.D.B., V.C.) met regularly to establish the scope and goals of the panel. In light of significant changes in prenatal care delivery as a result of the COVID-19 pandemic, the leadership team recognized a need to efficiently provide guidance on prenatal care delivery for maternity care clinicians (eg, specialists in general obstetrics and gynecology, family medicine physicians, certified nurse-midwives, licensed midwives, nurse practitioners) working with individuals with average-risk pregnancies. Leaders recognized the importance of releasing new recommendations during the public health crisis but did not plan for recommendations to be solely for the COVID-19 pandemic. Rather, the aim was to develop interim guidance incorporating adaptations of prenatal care in response to the pandemic, which could inform a more universal approach after resolution of the public health crisis.

Because there is no widely accepted definition of “average-risk pregnancy,” 23 – 25 panelists developed a pragmatic definition of average-risk: individuals who do not require care from a maternal–fetal medicine subspecialist. Panelists recognized it would be impossible to consider all potential pregnancy conditions during the initial panel. Thus, in addition to individuals without any conditions (nulliparous and multiparous individuals without medical risk factors or adverse social and structural determinants of health), panelists considered an additional 41 medical conditions identified from existing guidelines and the literature for possible inclusion. Of those, six were ultimately selected (Appendix 1 , available online at <http://links.lww.com/AOG/C398>). Individuals with chronic conditions (chronic hypertension, preexisting diabetes, depression, or anxiety) and with pregnancy-related complications (history of single prior unexplained miscarriage, gestational hypertension, gestational diabetes) were chosen because these are common conditions in pregnancy, are routinely cared for by maternity care professionals, and represent increased risk for adverse perinatal outcomes (eg, entire pregnancy or specific trimesters). Recognizing the significant influence of nonmedical conditions on maternity care access and outcomes, the leadership team worked with experts in social and structural determinants of health and maternity care equity to generate a comprehensive list, including material needs (eg, housing insecurity, inadequate health care coverage), psychological needs (eg, self-efficacy, tobacco use), social needs (eg, poor social support, intimate partner violence), and demographic characteristics (eg, immigrants, rural patients), that could potentially affect prenatal care delivery and perinatal outcomes.^{5,26} These conditions were initially referred to as “psychosocial conditions”; however, per the panel's recommendations, were ultimately referred to as “social and structural determinants of health” to reflect modern terminology.

Prenatal services (eg, laboratory tests, vaccinations, ultrasonograms), which have a strong evidence base, were not included in MiPATH recommendations. 1 Rather, panelists focused on components of prenatal care delivery, for which the effectiveness is less well-known. These components included: 1) visit scheduling: the appropriate timing of the first prenatal visit, first trimester ultrasonogram, and subsequent prenatal visits; 2) routine pregnancy assessments: blood pressure, fetal heart tones, weight, and fundal height; 3) the appropriateness of telemedicine for specific prenatal visits, including the use of home devices; 4) recommendations for individualizing care based on medical conditions; and 5) the effect of social and structural determinants of health on prenatal care delivery.

For frequency of prenatal visits, we defined five key visit schedules: every 6 weeks, every 4 weeks, every 2 weeks, weekly, and a schedule based on services. The schedule based on services was defined by the ACOG-recommended services that must be delivered through routine prenatal care (Fig. 1).

As recommended by RAM, we conducted a literature review and data synthesis to support panel deliberations. The procedures and results of this literature review are available in a separate article in this journal (see page 603). To supplement the literature review, the leadership team also identified Clinical Practice Guidelines and notable publications not retrieved in our searches to inform panel discussions (Appendix 2 , available online at <http://links.lww.com/AOG/C398>). The review included visit timing and frequency, routine pregnancy assessments, and the use of telemedicine in individuals with and without medical conditions. The literature review was available to panel participants during the rating process.

Nineteen clinicians and researchers who represented expertise across maternity care, pediatrics, telemedicine, and social and structural determinants of health were identified by the leadership team and invited to participate in the panel. Panel details can be found in Appendix 3 , available online at <http://links.lww.com/AOG/C398> . To ensure patients' perspectives were included in the panel, we identified two patient representatives to participate in meeting discussions who did not complete scenario ratings.

We developed scenarios based on the eight representative conditions and relevant prenatal care delivery components identified by panel leaders. Scenarios were reviewed with RAM experts (V.C., S.J.B.), panel leaders (A.F.P., C.M.Z., W.B., M.T., S.D.B.), and six panelist representatives to ensure clarity. We included scenarios with limited evidence, because these recommendations are still important for maternity care practitioners in real-world practice. Scenarios were carefully constructed to reduce ambiguity, including standardizing the timing of presentation to care and considering only one condition per scenario. Similarly, panelists were asked to independently consider prenatal visits, excluding considerations such as antenatal testing (eg, nonstress tests, biophysical profiles). Because the risk of pregnancy-induced complications increases over time, all components of prenatal care were considered at four key time points: presentation to care through the end of the first trimester (13 6/7 weeks), second trimester (14 0/7–27 6/7 weeks), early third trimester (28 0/7–35 6/7 weeks), and late third trimester (36 0/7 weeks to delivery). This resulted in multiple scenarios: For example, for the prenatal care component appropriate frequency of monitoring blood pressure, panelists were asked to rate the appropriate frequency of monitoring for each condition (eg, no medical or social conditions, chronic hypertension) over relevant trimesters. For conditions that affected all trimesters, panelists completed four ratings; for conditions that affected specific trimesters (eg, gestational diabetes), panelists completed ratings only for the appropriate trimester (eg, early and late third trimester).

Panelists completed two rounds of appropriateness ratings, as specified by RAM. 17 Before the first-round ratings, all panelists joined a virtual webinar describing the panel goals, reviewing available panel resources (eg, literature review, definitions), and describing the rating process. The first-round rating was performed independently through Excel spreadsheets and returned electronically. Panelists were asked to rate the appropriateness of multiple aspects of prenatal care across defined gestational ages and additional conditions. In accordance with RAM,

appropriateness was rated on a scale of 1–9, where 1–3 represent “inappropriate,” 4–6 represent “uncertain,” and 7–9 represent “appropriate.” Panelists were asked to incorporate findings from the literature review, as well as their clinical experience, when rating scenarios. All results were centrally inputted to generate a master rating document. Panelists received individualized reports with their responses compared with the full panel’s responses before the group discussion. The panel convened virtually for two days to review and discuss all ratings. This discussion was facilitated by an expert in prenatal care delivery (A.F.P.) and RAM (S.J.B.). After the discussion, panelists were asked to re-rate each of the indications in a new Excel spreadsheet using the same method outlined above. Final ratings were classified in three levels of appropriateness (Box 1).

Of the invited panelists, 18 out of 19 completed both rounds of clinical ratings of the appropriateness of selected scenarios (Box 1 for definitions). In the first round, panelists rated a total of 1,230 clinical scenarios; they rated 642 as appropriate (52.2%), 338 as inappropriate (27.5%), and 100 as uncertain (8.1%), and they disagreed on 150 scenarios (12.2%). During the second round, the panelists removed 347 scenarios because they were considered redundant. For example, ratings for medically and socially average-risk nulliparous and multiparous individuals were identical; thus, they were collapsed into one category. Similarly, recommendations for use of telemedicine for routine pregnancy assessments were identical across conditions; thus, they were rated only once.

Several scenarios were added after panel discussion. The panel identified the need for a “pregnancy risk assessment” for all individuals to identify medical and obstetric risk factors and social and structural determinants of health that may affect that individual. Panelists rated the appropriate timing of the risk assessment in round two. Three social and structural determinants of health—mood or anxiety disorders, pregnancy-related anxiety, and increased pregnancy education needs—were added, bringing the total to 21 determinants. Panelists rated a total of 883 clinical scenarios in the second round, of which they rated 492 as appropriate (55.7%), 245 as inappropriate (27.7%), and 58 as uncertain (6.6%). They disagreed on 88 (10.0%). Thus, the panel discussion and clarification reduced disagreement and uncertainty from 250 to 146 indications.

After reviewing the schedule of prenatal services, panelists agreed that a minimum of four in-person visits would be required in any visit schedule: the first prenatal visit, 28 weeks, 36 weeks, and 39 weeks, with a range of 1–2 weeks on either side. The panel ultimately recommended more than four total visits in pregnancy and agreed that these additional visits could be completed in person or remotely outside of the four key in-person contacts (if available) (Box 2 and Table 1).

Panelists rated the appropriateness of a pregnancy risk assessment and using telemedicine for routine pregnancy assessments for all individuals. The panel recognized that it is important to complete a comprehensive assessment as early as possible in pregnancy to ensure identification of risk factors, connection to services, and care planning. The panel believed this risk assessment could be completed in person or through telemedicine by any trained health care professional capable of screening for medical, social, and structural determinants of health (eg, nurse, medical assistant). The panelists agreed that the optimal timing of the risk assessment was 6–10 weeks of gestation. The panel agreed that, if a patient presented after that range, risk assessment was still necessary and should be completed as soon as possible.

Panelists rated the appropriateness of routine pregnancy assessments at all (eg, in clinic or remotely) and remotely in each trimester (Fig. 2). Panelists agreed that monitoring all identified assessments (blood pressure, fetal heart tones, weight, and fundal height) was appropriate in person and remotely in the second and third trimester. Monitoring of blood pressure and weight was also considered appropriate in person and at home in the first trimester. Panelists agreed that an in-person assessment of fetal heart tones was appropriate in the first trimester, but were uncertain about remote monitoring. Monitoring of fundal height was considered inappropriate in the first trimester, whether completed in person or remotely.

Panelists agreed that, ideally, a patient's first ultrasonogram and the first prenatal visit with a clinician should be completed between 7 and 10 weeks of gestation. Panelists emphasized this timing should be used to promote timely access for individuals and provide opportunity for optimizing care early in pregnancy (Appendix 4 , available online at <http://links.lww.com/AOG/C399>).

Regarding visit frequency, panelists identified a range of visit schedules as appropriate for a given trimester. Visits were generally spaced farther apart and based on services for the first and second trimesters, becoming more frequent later in the third trimester. Telemedicine was considered appropriate for some visits in all visit schedules that the panelists determined were appropriate. Similarly, spacing of routine pregnancy assessments was considered appropriate in the first and second trimesters, with more frequent monitoring as the pregnancy progressed.

Panelists recognized the need for more intense monitoring and contact with individuals with chronic hypertension and preexisting diabetes across all trimesters, including the need to establish baseline measures, optimize control, promote life-long healthy behaviors, and identify disease sequelae and pregnancy complications. Panelists agreed that the first dating ultrasonogram should be completed between 7 and 10 weeks of gestation and that the first prenatal visit should be completed between 6 and 10 weeks for individuals with these conditions. They agreed that a more frequent prenatal visit schedule, identical to current prenatal care recommendations, is appropriate for these patient populations (Appendix 5 , available online at <http://links.lww.com/AOG/C400>).

The panel also recommended increasing the frequency of routine monitoring over the course of pregnancy for this cohort. In particular, there was robust discussion about the appropriate frequency of blood pressure monitoring for individuals with chronic hypertension in the first and second trimester, weighing the benefits of more frequent monitoring to obtain more baseline measures against the burden of collecting multiple measures. Ultimately, the panel agreed to monitoring blood pressure monthly in the first trimester and every 1 to 2 weeks in the second trimester.

Panelists recognized that individuals who experienced one prior unexplained pregnancy loss may have heightened concerns in the first trimester and desire reassurance. Panelists weighed these patient considerations against the lack of available medical treatments to effect pregnancy outcomes in individuals with this history. Panelists agreed that individuals' first ultrasonogram should be completed between 7 and 10 weeks of gestation and that their first prenatal visit with a clinician should be completed between 6 and 10 weeks. They also agreed that prenatal visits in the first and second trimesters should be more frequent—every 4 weeks—and that some of these visits may be appropriate for telemedicine. Frequency of routine assessments was similar to average-risk recommendations for blood pressure, weight, and fundal height, but there was uncertainty about the appropriate frequency of fetal heart tone detection in the first trimester. Panelists recognized more frequent monitoring (every 4 weeks) might provide individuals with reassurance, yet acknowledged more frequent monitoring would not influence outcomes (Appendix 6 , available online at <http://links.lww.com/AOG/C401>).

The initial scenario regarding gestational hypertension was an individual being diagnosed at 28 weeks of gestation. The panelists expressed concern that earlier onset gestational hypertension could pose greater risk of preeclampsia, compared with manifesting gestational hypertension at a later gestational age, and may therefore not represent an average-risk pregnancy. As a result, this consideration was reclassified as gestational hypertension diagnosed at 32 weeks of gestation or later. The gestational diabetes scenario was not edited. Panelists agreed that, compared with the average-risk individual without comorbidities, for individuals with gestational hypertension or gestational diabetes, both visits and pregnancy parameter assessment should be more frequent, with increasing frequency as the pregnancy progressed. The one uncertainty was the appropriate frequency of fundal height measurement in the setting of gestational hypertension, owing to existing guidelines recommending serial fetal growth ultrasonographic examinations and minimizing the role of fundal height in screening for growth disorders (Appendix 7 , available online at

<http://links.lww.com/AOG/C402>).

Panelists acknowledged that social and structural determinants of health affect both access to maternity care and pregnancy outcomes, thus having a profound effect on health. Panelists agreed that maternity care clinicians were unlikely to be able to address many of these determinants in practice; however, they also acknowledged that some communities and health systems may not have available services to address these determinants. Thus, two kinds of scenarios emerged: those where the patient's adverse social and structural determinants of health could be addressed through services available in the health system or community, and those where the need could not be met through existing services. Panelists were asked to rate the average-risk schedule and use of telemedicine for all determinants for each situation (services available and services not available) (Appendix 8 , available online at <http://links.lww.com/AOG/C403>).

Panelists uniformly agreed that when individuals' identified needs could be met through additional services, the patient should be connected to these services and that there was rarely a need to increase visit frequency beyond the average-risk visit schedule. Panelists discussed that in this scenario, additional prenatal visits were unlikely to address nonmedical needs and could potentially create more burden for patients. There was uncertainty about the appropriateness of the average-risk visit schedule for three conditions in this scenario: low health literacy, pregnancy-related anxiety, and intimate partner violence. Telemedicine was seen as appropriate for all conditions except intimate partner violence; panelists were concerned that telemedicine visits may not afford sufficient privacy for individuals to disclose concerns or establish safety.

Panelists also considered the appropriateness of average-risk visit schedules and telemedicine when an individual's identified needs could not be met through additional services. There was uncertainty about the appropriateness of the average-risk visit schedules for many conditions, including food insecurity, housing insecurity, low self-esteem, low social support, intimate partner violence, immigrant populations or non-English-speakers, mood and anxiety disorders, increased pregnancy education needs, and pregnancy-related anxiety. Panelists acknowledged that for many of these conditions, additional visits with a maternity care professional may not address the underlying condition, but that the inability to meet the patient's need through additional services or patient preference might be an indication for increased frequency of contact. Additionally, panelists were concerned that some conditions, such as food insecurity, may have medical consequences such as inadequate weight gain and fetal growth restriction, that might require additional prenatal visits for monitoring. Under the condition that needs could not be met with available resources, the reduced visit schedule was rated as inappropriate for individuals with low health literacy. In contrast, panelists agreed that telemedicine was appropriate for almost all conditions, aside from intimate partner violence.

The MiPATH recommendations for prenatal care delivery include individualizing care, incorporation of telemedicine, and consideration of both medical conditions and social and structural determinants of health in routine care delivery. An early risk assessment of medical and obstetric risk factors, as well as social and structural determinants of health for all individuals, ensures individuals are connected to needed services as early as possible. The average-risk visit schedule includes more flexible prenatal care choices—with options for visit frequency, monitoring plans, and inclusion of telemedicine—determined by patient preference and needs in consultation with practitioner recommendations. MiPATH recommends increasing the frequency of visits and monitoring for those with complications or complex conditions, helping practitioners to match individuals' needs to services delivered.

MiPATH recommendations share several features with previously proposed prenatal care guidelines. In 1989, the Public Health Service Expert Panel convened by the National Institute of Health recommended a prenatal visit schedule for average-risk individuals according to needed services, with seven visits for multiparous patients, nine visits for nulliparous patients, and additional visits as needed. ²⁷ These guidelines were not widely adopted owing to lack of supporting evidence, though existing prenatal care guidelines were also not evidence-based. ²⁸

Since that time, several professional groups have recommended more flexible visit schedules for average-risk individuals, though national U.S. guidelines have remained unchanged. 10 , 29 , 30 In contrast, telemedicine is relatively nascent in prenatal care, with limited use until the COVID-19 pandemic. 31 Thus, existing guidelines do not include comprehensive recommendations on when telemedicine may be appropriate for prenatal visits, and what is required to complete these visits safely. Similarly, because routine pregnancy assessments have historically been completed only with prenatal visits, telemedicine offers new opportunities for decoupling these services. MiPATH recommendations fill important existing gaps in understanding how telemedicine services can be used. Finally, key national organizations, including ACOG, have recommended incorporation of social and structural determinants of health into routine care delivery, yet how to do so has remained unclear. 5 , 32 , 33 MiPATH provides more concrete guidance on when to screen for social and structural determinants of health and how findings may influence other aspects of prenatal care delivery.

The MiPATH panel identified gaps in existing evidence for all areas considered. Meta-analysis–level data from the 1990s and 2000s suggest equivalent outcomes for traditional and reduced visit schedules; however, data are limited to highly controlled settings, homogenous populations, and fail to fully address patient experience metrics. 34 More modern data are needed given significant changes in population health, care delivery, and patient preference over the past two decades. Similarly, existing studies of telemedicine and home device use in pregnancy have relatively small sample sizes and have been conducted in largely White, high-income, highly educated populations. 35 , 36 Larger, real-world trials in diverse practice settings are needed to understand health and patient experience metrics. Frequency of routine assessments in pregnancy and the accuracy of home monitoring are additional areas in need of further exploration. Finally, the panel recognized the importance of social and structural determinants of health and the relative absence of data on how best to screen and manage conditions once identified. Further research to develop pregnancy-specific screening tools and management strategies, particularly team-based care, were identified as research priorities for the future. As long as clinical equipoise between prenatal care delivery approaches remains, the standard should continue to be shared decision making.

The panel also identified several policy priorities for supporting implementation of MiPATH recommendations. At the professional organization level, panel members recognized the importance of integrating prenatal care as part of the spectrum of women's health services, including preconception, postpartum, and well-woman care. Additionally, the panel emphasized the need for broad stakeholder engagement including patients, practitioners, government organizations, and payers. At the national policy level, panelists emphasized the need for flexible maternity care payment models that support innovative, team-based models of care. Additionally, several telemedicine policies, including broadband access, parity for phone and video visits, and coverage of durable medical equipment, were seen as crucial for ensuring equitable access to telemedicine services.

Though new MiPATH findings provide important guidance for maternity care clinicians, we acknowledge limitations. First, the quality of recommendations is dependent on the available evidence. Because some areas considered lack robust evidence, many recommendations are based largely on expert consensus. Second, the panel considered prenatal care delivery in an ideal setting, where individuals presented early in pregnancy and had access to all necessary telemedicine equipment. Practitioners will need to balance real-world considerations, including late presentation to care and lack of supporting resources, when enacting MiPATH guidelines. These barriers are important areas for future research and policy recommendations to ensure individuals have access to high-quality care.

MiPATH recommendations are the initial step in an ongoing process. We plan to obtain interested parties' input—patients, professional societies, public health representatives, and payers—to garner diverse perspectives on new recommendations. Additionally, an Agency for Healthcare Research and Quality systematic review is underway to capture additional supporting evidence for

key aspects of prenatal care delivery, including new evidence available after the COVID-19 pandemic. Through these efforts we are confident that prenatal care can be redesigned to be more effective, efficient, and equitable for pregnant individuals nationwide.

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Data from American College of Obstetricians and Gynecologists. Antepartum record. Washington, DC: ACOG; 2017. Available at: <https://www.acog.org/clinical-information/obstetric-patient-record-forms> . Retrieved July 2, 2021.

Appropriateness of monitoring and remote monitoring of routine pregnancy assessments. BP, blood pressure; FHT, fetal heart tones; Wt, weight; FH, fundal height.

Summary of MiPATH (the Michigan Plan for Appropriate Tailored Healthcare) Recommendations for Prenatal Care Delivery

BP, blood pressure; FHT, fetal heart tones; Wt, weight; FH, fundal height; ?, not mentioned in existing guidelines; X, inappropriate; N/A, no recommendation for this time point.

Some visits in this schedule are appropriate for telemedicine.

Appropriate: benefits of the intervention outweigh the risks, independent of cost

Inappropriate: benefits of the intervention do not outweigh the risks, independent of cost

Appropriate: panel median score 7–9 with agreement*

Uncertain: panel median score 4–6 or disagreement †

Inappropriate: panel median score 1–3 with agreement*

* Agreement: five or fewer panelists outside of the 3-point range, including the median.

† Disagreement: six or more panelists at either extreme (1–3 or 7–9).

Screening and connection to resources for social and structural determinants of health

Third-trimester laboratory tests (CBC, diabetic screen)

Tetanus diphtheria and pertussis vaccine