MSN Capstone Project Proposal Form

This is a building assignment that you will be completing over Week 1 through Week 9. This is a stepwise project proposal assignment in which you will complete one (1) section each week for your MSN Capstone Project Proposal. By the end of the Week 9, this form will have been filled in completely and your MSN Capstone Project Proposal will be completed. It is important that you keep up with the Weekly Assigned Section. Each section is graded separately on a weekly basis while the final completed form will be graded with an overall grade. Each week the student will receive feedback from the instructor and the student is expected to incorporate the instructor feedback to edit and improve the weekly sections. The Week 9 final Capstone Project Proposal with be based on students incorporating the instructor's weekly feedback.

How to use this form.

- Must use the same form for all sections. The purpose is to have a completed the entire form by the end of the course.
- Complete the week's section with the requested information.
- There are suggested word counts for each weekly section to provide you with an idea of what is expected.
- You are to write in full sentences, paragraphs, correct grammar, and spelling.
- Use APA formatting with citations and references list.
- Refer to the ***MSN Capstone Project Proposal Form Example*** found in Week 1 and in the Course Resources tab.
- Do not delete or edit the week section instructions.
- Do not lock the form because that will stop you from editing and revising within the form.
- Leave NO blank sections. All sections are graded separately.
- You may work ahead; however, the instructor will only grade the week's section due for the assigned week and the form must be submitted each week.
- Read the item descriptions carefully. Items request very specific information. Be sure you understand what is requested.
- Use primary sources for any references. Textbooks are not acceptable as references.

Late Assignments: Students will receive a 10-point grade reduction for each day the assignment is submitted past the due date. After three (3) days past the due date, students will receive a zero (0) for that weekly section but must complete for the final Week 9 grading.

MSN Capstone Project Proposal Form

Student Name	
MSN Program	
Project Title	

Week 1

State Your Clinical Question
[100 to 150 words]

- State your clinical question or topic for your capstone project proposal.
- What issue is the question/topic addressing?
- What are the reasons you selected this question/topic?

"Effectiveness of diabetes screening as an intervention to promote better health outcomes for pregnant women and their unborn babies" is the selected topic for the capstone project. The project proposes diabetes screening as an effective intervention to improve health outcomes for pregnant women and their unborn babies. The topic was selected due to the adverse health outcomes associated with diabetes in pregnant mothers and their unborn babies. Up to 1%-2% of the pregnant women in the United States have type 1 or Type 2 diabetes, while 6%-9% of pregnant women develop gestational diabetes (CDC, 2018). Gestational diabetes increases the rate of stillbirth, birth defects, and preterm birth, and may cause a high risk of caesarian delivery in pregnant women (Thangaratinam et al., 2020). The question is worth addressing as gestation diabetes is still prevalent in pregnant women living in the United States despite effort to address the condition (Deputy et al., 2018). This topic will shed light on the interventions that can be implemented by healthcare professionals to improve the health outcomes of pregnant women diagnosed with diabetes. There is a need to determine evidence-based interventions to improve the health outcomes of pregnant women with diabetes and their unborn babies.

Week 2
Background Information [200 to 250 words] Address the following questions/bullets in completing this section: ● Start at the starting point - What, Where, When, Why, and How? ● What is known about this topic or what is the evidence on this topic **(Scoping Search)**? ● What is the outcome of interest? ● What are the gaps in our understanding or knowing related to this topic?
The project aims at shedding light on the importance of diabetes screening in pregnant women in the United States as an initiative to improve the health outcomes of pregnant women and their unborn babies. According to Voormolen et al. (2018), pregnant women are at a high risk of having diabetes as high blood sugar tends to develop during pregnancy. Women with the greatest risk of developing diabetes have characteristics such as being older than 25 years, being overweight, having a family history of diabetes, and a previous gestational diabetes diagnosis (Yan et al., 2019). If left unmanaged, diabetes in pregnant women may cause adverse health outcomes as it causes the baby's blood sugar to increase, resulting in a large baby, which may cause problems for the baby and mother during delivery (Farahvar, Walfisch, & Sheiner, 2019). The outcome of interest is increased diabetes screening in pregnant women, resulting in increased diagnosis of diabetes, and consequently, better management of the disease in pregnant women. The gaps in understanding the topic involve limited knowledge on the relationship between interventions to improve diabetes screening in pregnant women, and how that contributes to better health outcomes for pregnant women diagnosed with diabetes, and their babies.
Week 3
Literature Search Strategies [150 to 200 words] Provide details of your exhaustive search process. Be certain to list: ● Databases searched. ● All the keywords or search phrases used. ● How many articles in total that were found? ● List the inclusion/exclusion criteria. ● Provide the number of articles that were retained and a description on why those articles were

retained.

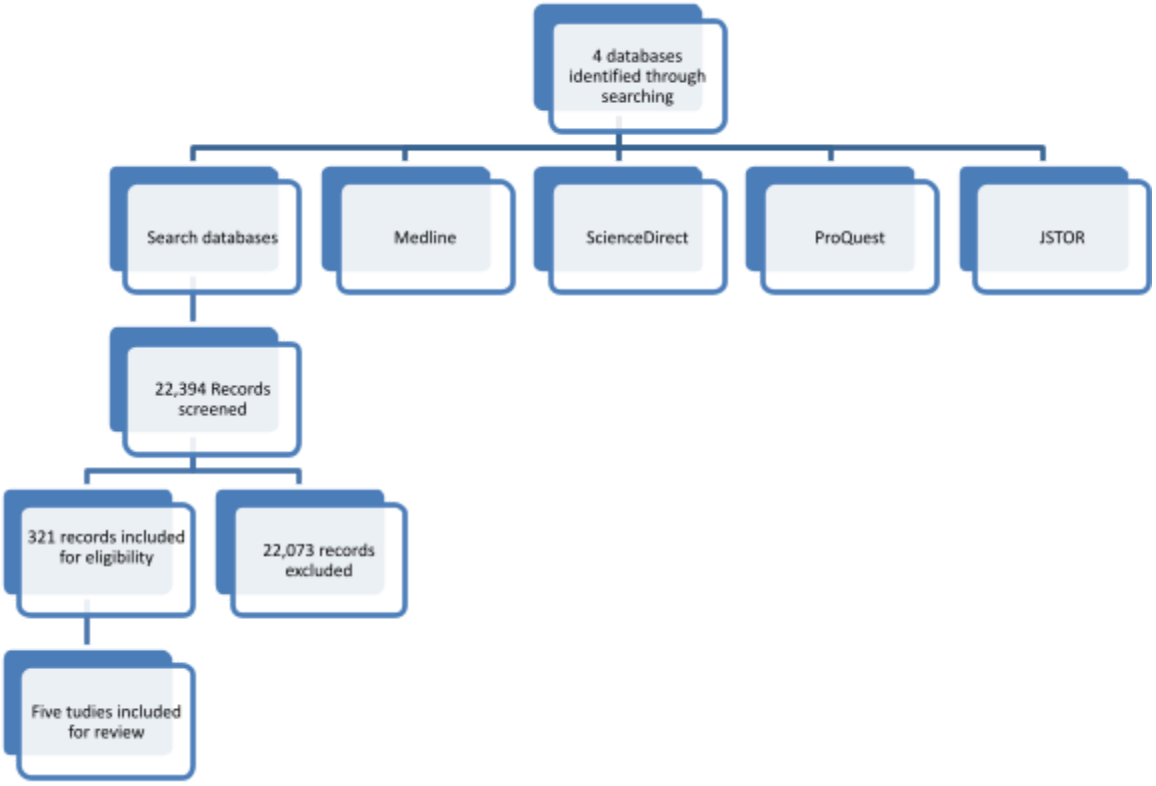
- Consider using a flowchart to outline the search process.

There are four databased that were used for the Literature Review. They include Medline, Science Direct, ProQuest, and JSTOR. The keywords used for the search are:

- Diabetes+screening+pregnancy
- Diabetes+pregnancy
- Blood sugar+pregnancy
- Diabetes+prevention+pregnancy
- Diabetes+unborn baby
- Gestational diabetes

A total of 22,394 were found for the four search results. They include 1,370 from Medline, 7,812 from ScienceDirect, 9,754 from ProQuest, and 3,458 JSTOR. The inclusion criteria for the study includes sources published from 2018, use of English, peer-reviewed, and relevant to the clinical question. Studies that did not include results pertaining to pregnant women and diabetes were excluded. The articles that were retained were relevant in answering the clinical question. While the Literature Review only included five sources, there final search results included 113 papers, but they were reviewed and selected to address different components of the clinical question. The retained papers addressed, the prevalence of diabetes in pregnant women, impact of gestational diabetes, and

strategies to monitor gestational diabetes.



Week 4

Literature Review
[500 to 1000 words]

Conduct a review of the literature. Include at least five (5) research articles and/or evidence-based guidelines. Address the following questions/bullets in completing this section:

- Conduct a review of the literature.
- Provide the highlights from the research.
- Synthesize the literature on the topic.
- Summarize how the project will contribute to knowledge by filling in gaps, validating, or testing knowledge.
- Cite references in this section per APA and list the reference in the References section at the end of the form.

Diabetes testing depends on the clinical' facility's capacity as well as individual willingness to have a diabetes test. The COVID-19 pandemic had a negative impact on diabetes testing as it reduced the number of pregnant women visiting healthcare facilities for in-person healthcare appointments for diabetes testing (McIntyre & Moses, 2020). The reduction in the number of women visiting healthcare facilities for diabetes testing calls for the implementation of strategies to promote remote monitoring for pregnant women with diabetes.

According to Liu et al. (2019), there is an increase in the number of pregnant women testing positive for gestational diabetes risk factors for gestational diabetes include women with three pregnancies or more, women who are thirty years and above, and women with a pre-pregnancy BMI of <24kg/m2. High-risk pregnant women should be identified and enrolled into early diabetes testing.

Testing for gestational diabetes is important as the disease is associated with increased pregnancy complications and long-term metabolic risk for the woman and baby. In children, gestational diabetes may have long-lasting impacts involving childhood obesity (Saravanan et al., 2020). Gestational diabetes should be tested to promote better health outcomes for the pregnant women and their offspring.

Diabetes screening is an effective approach in the management of the disease. Hillier et al. (2021) indicate that a two-step approach is more effective in the diagnosis of the disease. The study involved a glucose challenge test in the fasting state which was obtained after the oral administration of a 50g glucose load, and an oral glucose-tolerance test in the non-fasting state. The study demonstrated that women with more than one pregnancy should be administered the two-step diabetes testing approach as it is more effective in diagnosing diabetes in high-risk populations. They recommend early diabetes testing for women with a high risk of diabetes.

Huhn, Rossi, Hoesli, and Göbl (2018) conducted a research study where they recommended strategies for early screening and diagnostic approaches of diabetes in pregnant women including fasting and random plasma glucose, oral glucose tolerance test, and hemoglobin A1c. A combination of the methods can be adopted for increased effectiveness in early diabetes diagnosis.

The literature has provided information that will be used in the implementation of the project. It identifies the importance of testing for diabetes in high-risk women visiting antenatal clinics for the first time. The analysis includes the methods used for diabetes testing. Also, the Literature Review indicates the challenge of testing and monitoring pregnant women for diabetes due to a reduction in the number of visitations as a result of Covid-19. Information from the Literature Review will be used to inform the project as it has demonstrated the need to implement a diabetes testing program that will make it easier for pregnant women to get tested and monitored for diabetes. The project will incorporate knowledge gained from the Literature Review by recommending a program that will encourage diabetes testing in pregnant women and increased monitoring of women with gestational diabetes. The project will result in better outcomes for pregnant women and their offspring.

Week 5
PICOt Question State your PICOt question here. Use the elements of the PICOt in separate sections below to describe each component. ● Population – Provide the description of the targeted population. ● Intervention – Describe your evidence-based intervention. ● Comparison – What is currently happening? ● Outcomes – List at least two (2) measurable outcomes. ● time – What duration of the study for the project? (e.g., usually 6 months or 3 months)
Population(P): High-risk pregnant women making their first antenatal visits and all pregnant women at 28 weeks of pregnancy Intervention (I): High-risk diabetes testing during a woman's first antenatal visit and at 28 weeks of pregnancy Comparison (C): Current practice Outcomes (O): Increased diagnosis of pregnant women with diabetes, better monitoring of women with diabetes, and improved health outcomes for pregnant women and their unborn children time (t): 6 months
Week 6
P (Target Population) [75 to 100 words] Address the following questions/bullets in completing this section: ● Who is your target population? ● Describe your population, i.e., age, ethnicity, gender, condition/diagnosis, etc.?

- Describe the setting where this project be implemented?

The target population involves pregnant women making their first visit at the antenatal facility and at 28 weeks of pregnancy. Only high-risk diabetes women will be enrolled in the project. The facility is located in a community with a high population of African American and Hispanic women. It is expected that majority of the target population will be from minority ethnicities. The project will be implemented at a clinical facility that provides prenatal and antenatal care.

Week 7

I (Intervention)

[100 to 200 words]

Address the following questions/bullets in completing this section:

- What are you planning to investigate or implement as a policy/process or program?
- What are you doing that is different than what is currently happening?
- List ***2-3 potential*** actions that will be applied in this practice change.

NOTE: Be very specific in your description.

Currently, the diabetes test is offered to women with one or more risk factors for gestational diabetes. Women will be screened for their risk of diabetes and high-risk women will be enrolled into the project. The proposed intervention will conduct diabetes testing on all the high-risk pregnant women during their first antenatal visit. The difference between the proposed study and what has been currently happening is that diabetes testing will be conducted on all women visiting the antenatal clinic for the first time. The potential action applied to the practice change is diabetes testing for high-risk first-time visits and at 28 weeks of pregnancy. The blood sugar levels of pregnant women diagnosed with diabetes will be closely monitored for management.

*For purposes of this Proposal Project Form the assumption will be that the C (Comparison Group) is 'traditional care or current care'

Week 8

O (Outcomes to be measured)

[100 to 150 words]

Every project is required to have an evaluation plan. Address the following questions/bullets in completing this section:

- Which ***2-3 outcomes*** are expected for your project?

- What outcomes will be measured?
    - How do you plan to do this?
    - What tool will you be using to measure your outcome(s)?
    - What data will be used to validate success of the project?

Be sure your outcomes link to the identified problem.

- How will you know if your intervention resulted in change?

The program should enhance the diagnosis of diabetes in pregnant women, resulting in early detection of the disease, better monitoring, and improved health outcomes in pregnant women. The intervention will identify the number of women testing positive for diabetes during the first antenatal visit and the number of women testing positive for diabetes at 28 weeks of pregnancy. The outcome will have resulted in change if it identifies women with diabetes during the first antenatal visit. Early identification will result in better health outcomes for the mother and the unborn baby due to the close monitoring of their blood glucose and the implementation of interventions to manage blood glucose.

Week 9 & References

9.1 Conclusion

[200 to 250 words]

- Provide a summary for your MSN Capstone Project.
- Select and provide the rationale for three (3) competencies or specialty standards that you would expect to use in implementing this project [*List of your specialty competencies are listed in the Week 9 Reflection Post*]

9. 2 References

[Minimal of 5 research articles and references are paged on the last page.]

- Add your references in APA formats on the last page.

The program aim is to test high-risk pregnant women for diabetes during their first antenatal visits and at 28 weeks of pregnancy. It will provide a solution to the clinical problem, which focuses on how to reduce negative outcomes associated with gestational diabetes in pregnant women and their offspring. The intervention will promote better monitoring of diabetes as pregnant women diagnosed with diabetes can benefit from constant monitoring, resulting in better management of their blood glucose levels.

The ability to use logical thinking and accurate nursing skills will be implemented in the project as it will involve the use of nursing skills to screen pregnant women visiting the antenatal clinic for the first time for diabetes risk. Nursing skills will be needed when using evidence-based knowledge to make assessments and recommend treatment plans. The second competency that will be used in project implementation is the ability to understand needs. Each patient is unique and requires an individualized treatment approach. The competency will be applied when designing treatment plans for pregnant women diagnosed with diabetes. The third competency involves the ability to collaborate with others when providing care. Providing care will require a holistic approach integrating the services of physicians, nurses, and other healthcare experts.

References in APA format should begin on the next page.

References

[Provide at least 5 References]

CDC. (2018). Diabetes during pregnancy. https://www.cdc.gov/reproductivehealth/maternalinfanthealth/diabetes-during-pregnancy.htm#:~:text=develops%20during%20pregnancy.-,How%20Common%20Is%20Diabetes%20During%20Pregnancy%3F,has%20increased%20in%20recent%20years.

Deputy, N. P., Kim, S. Y., Conrey, E. J., & Bullard, K. M. (2018). Prevalence and changes in preexisting diabetes and gestational diabetes among women who had a live birth—United States, 2012–2016. *Morbidity and Mortality Weekly Report*, *67*(43), 1201.

Farahvar, S., Walfisch, A., & Sheiner, E. (2019). Gestational diabetes risk factors and long-term consequences for both mother and offspring: a literature review. *Expert review of endocrinology & metabolism*, *14*(1), 63-74.

Hillier, T. A., Pedula, K. L., Ogasawara, K. K., Vesco, K. K., Oshiro, C. E., Lubarsky, S. L., & Van Marter, J. (2021). A pragmatic, randomized clinical trial of gestational diabetes screening. *New England Journal of Medicine*, *384*(10), 895-904.

Huhn, E. A., Rossi, S. W., Hoesli, I., & Göbl, C. S. (2018). Controversies in screening and diagnostic criteria for gestational diabetes in early and late pregnancy. *Frontiers in endocrinology*, *9*, 696.

Liu, B., Song, L., Zhang, L., Wang, L., Wu, M., Xu, S., ... & Wang, Y. (2019). Higher numbers of pregnancies associated with an increased prevalence of gestational diabetes mellitus: Results from the Healthy Baby Cohort Study. *Journal of epidemiology*, JE20180245.

McIntyre, H. D., & Moses, R. G. (2020). The diagnosis and management of gestational diabetes mellitus in the context of the COVID-19 pandemic. *Diabetes Care*, *43*(7), 1433-1434.

Saravanan, P., Magee, L. A., Banerjee, A., Coleman, M. A., Von Dadelszen, P., Denison, F., ... & Maternal Medicine Clinical Study Group. (2020). Gestational diabetes: opportunities for improving maternal and child health. *The Lancet Diabetes & Endocrinology*, *8*(9), 793-800.

Thangaratinam, S., Cooray, S. D., Sukumar, N., Huda, M. S., Devlieger, R., Benhalima, K., ... & Teede, H. J. (2020). ENDOCRINOLOGY IN THE TIME OF COVID-19: Diagnosis and management of gestational diabetes mellitus. European Journal of Endocrinology, 183(2), G49-G56.

Voormolen, D. N., DeVries, J. H., Sanson, R. M., Heringa, M. P., de Valk, H. W., Kok, M., ... & Evers, I. M. (2018). Continuous glucose monitoring during diabetic pregnancy (GlucoMOMS): a multicentre randomized controlled trial. *Diabetes, Obesity and Metabolism*, *20*(8), 1894-1902.