Gestational Diabetes Screening in Primary Care

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Background

- Initial interest
  - Multiple primary care screenings
  - Diabetes is a main focus in primary care
  - No standardized workflow
- Health impacts of gestational diabetes
  - Increased lifetime maternal risk of diabetes
    - Increases linearly throughout lifetime
    - Prevalence - 14% in women >35 years old
      - ~10% of women in CT affected
      - Highest rates among non-white patients
- Need for screening and routine A1c monitoring

Aim Statement

- The aim is to improve the quality and value of:
  - Monitoring postpartum patients with history of GDM for development of T2DM
- The process starts with:
  - Determining how many patients have a history of gestational diabetes
- The process ends with:
  - Determining the percentage of patients that have subsequent recommended A1c screening
- By working on this, we expect to:
  - Examine if a care gap exists between obstetric and primary care
- It is important to work on this now because:
  - CHC New Britain site is planning to increase access to prenatal care
  - Early diagnosis of Type II Diabetes improves clinical outcomes

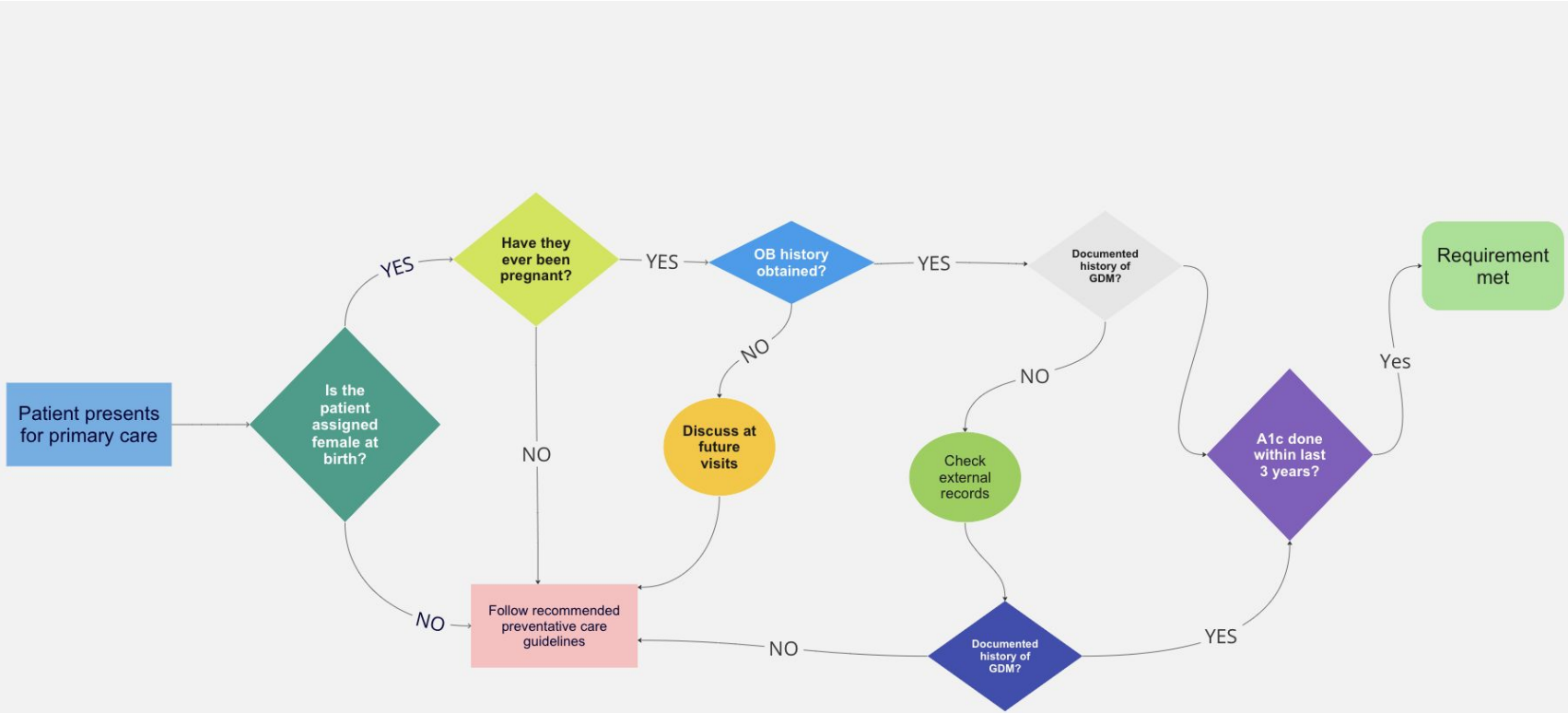
Stakeholders

- Providers
  - Coordinate majority of patient care
  - First contact at health clinic
- Women's Health
  - Care for many patients with gestational diabetes
  - Higher likelihood of documenting history of gestational diabetes in EMR
- Data Collection Team
  - Obtain and track metrics for QI and other internal efforts
- Upper Management
  - CHC to expand prenatal care program
  - Poor maternal health outcomes in New Britain

Process

1. Envision workflow to be implemented informed by current systems
2. Identify and engage stakeholders to assess practice gap within our site
3. Gather data about current target population and their follow up care
4. Trial the workflow in our own clinics
5. Implement refined workflow across our site and then eventually across the agency

Flowchart


Patient presents for primary care
Is the patient assigned female at birth?
YES
Have they ever been pregnant?
YES
OB history obtained?
YES
Documented history of GDM?
NO
Check external records
Documented history of GDM?
YES
A1c done within last 3 years?
Yes
Requirement met
NO
Discuss at future visits
NO
NO
Follow recommended preventative care guidelines
NO

Data

ControlNo	FullNameSort	BirthDate	PCP_Name	Phone1	Phone2	DiabetesA1cLastDate	A1C3YEARS
		4/20/2000	Sheikh MD, Seemab IM ADULT ONLY				0
		4/4/1991	Watkins APRN, Emma FP			1/31/2022	1
		3/11/1990	Bopp APRN, Amy FP			4/21/2022	1
		10/7/1987	Schiavone APRN, Gabrielle FP			6/28/2022	1
		10/31/1984	Garcia APRN, Meghan			8/17/2022	1
		5/30/1989	Bopp APRN, Amy FP			11/7/2022	1
		6/11/1983	Hall-Potvin PA-C, Brittany			2/13/2023	1
		7/19/1989	Yim APRN, Andrew - ADULTS ONLY			2/21/2023	1

Approach to Change

Things to Change:

- Capturing GDM diagnosis during primary care visit
- Standardizing documentation of GDM

PDSA cycle:

- Unable to determine if care gap exists due to lack of data points
- Best way to improve data capture via education feature during staff meeting
- Staff meeting was canceled, pivoted to email blast with educational poster and surveys
- Goal to increase provider awareness in the screening recommendations and encourage inquiry and documentation

Gestational Diabetes

Why do we care about gestational diabetes?

Research has shown that gestational diabetes is itself associated with an increased lifetime maternal risk of diabetes estimated at 50-60%. This risk increases linearly throughout a person's lifetime. Studies also suggest GDM as an indepedent risk factor for developing metabolic syndrome and cardiovascular disease.

How common is gestational diabetes?

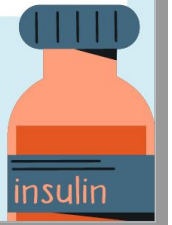
Prevalence is approximately 7.8% of births in the United States and 2-38% of pregnant people in other countries. Trends have shown gradual increases in prevalence, suspected to be a factor of increases in mean maternal age and BMI. Prevalence is 14.35% of women 35 years old and older in the United States.

Overall, 10.0% of women in Connecticut developed gestational diabetes, which was highest among non-Hispanic Other race women (19.4%) and lowest among non-Hispanic White women (6.4%).

What are the screening guidlines?

ACOG suggests screening people who had gestational diabetes between 4 and 12 weeks postpartum with a 75 gram OGTT.

ADA agrees with this postpartum screening and additionally thereafter, individuals should be screening with any recommended glycemic test every 1-3 years.



References

ElSayed, N. A., Aleppo, G., Aroda, V. R., Bannuru, R. R., Brown, F. M., Bruemmer, D., Collins, B. S., Hilliard, M. E., Isaacs, D., Johnson, E. L., Kahan, S., Khunti, K., Leon, J., Lyons, S. K., Perry, M. L., Prahalad, P., Pratley, R. E., Jeffrie Seley, J., Stanton, R. C., & Gabbay, R. A. (2022, December 12). 15. management of diabetes in pregnancy: Standards of care in Diabetes-2023. American Diabetes Association.

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Results

Pre-survey Results

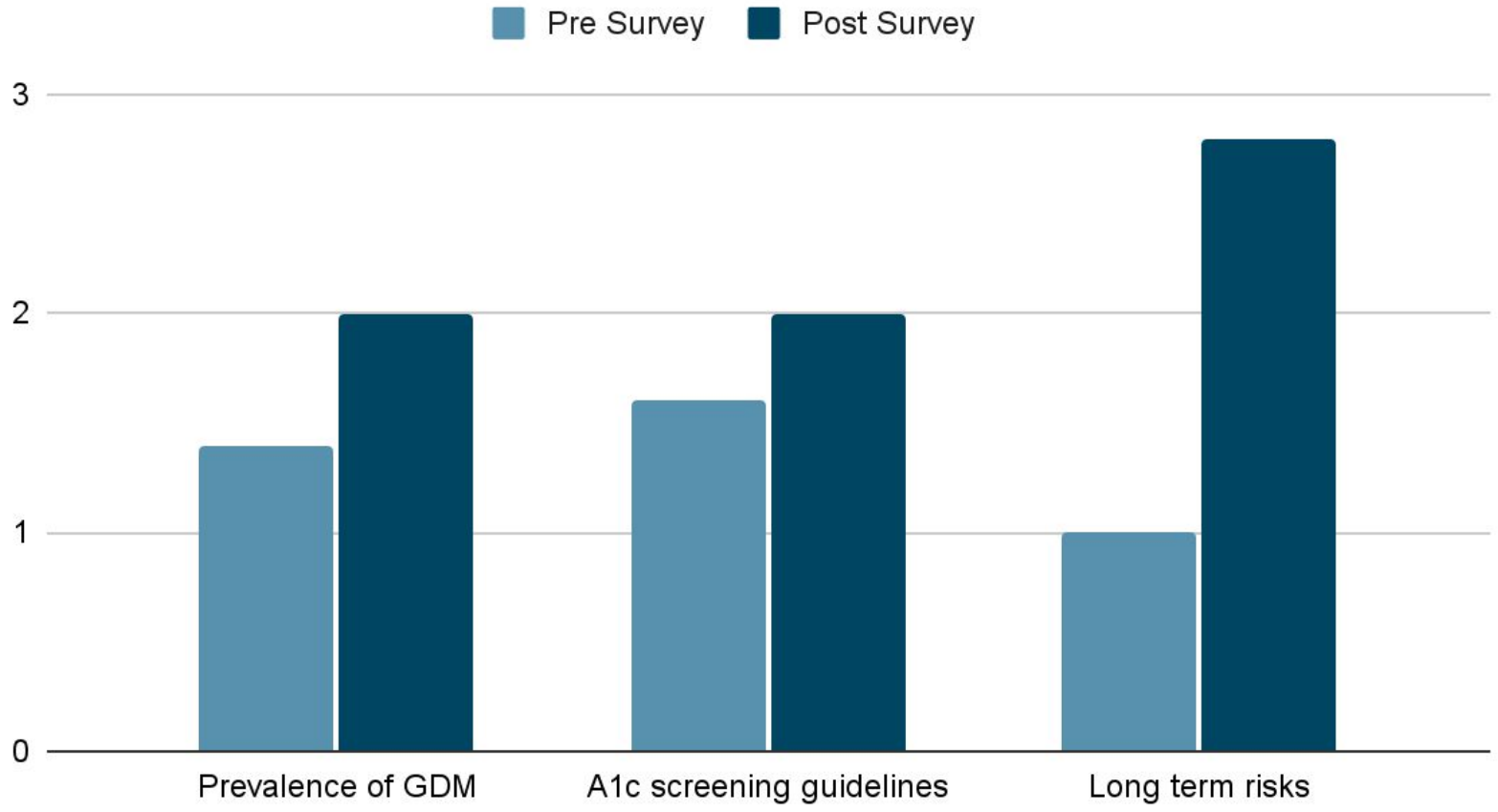
- Total responses: 5 responses
- Prevalence of gestational diabetes in the general population
  - Low, know very little about: 3
  - Moderate, basic knowledge about: 2
- Recommended A1c screening guidelines for patients with a history of gestational diabetes
  - Low, know very little about: 2
  - Moderate, basic knowledge about: 3
- What is the recommended frequency for A1c screening in people with a history of gestational diabetes?
  - Every 3 years: 5
- Long term health risks associated with a history of gestational diabetes
  - Low, know very little about: 1
  - Moderate, basic knowledge about: 4

Results

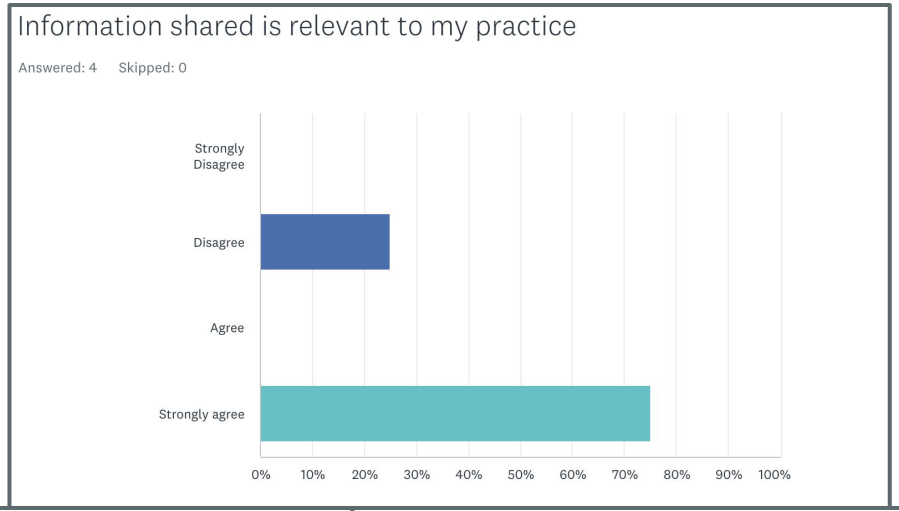
Post-survey Results

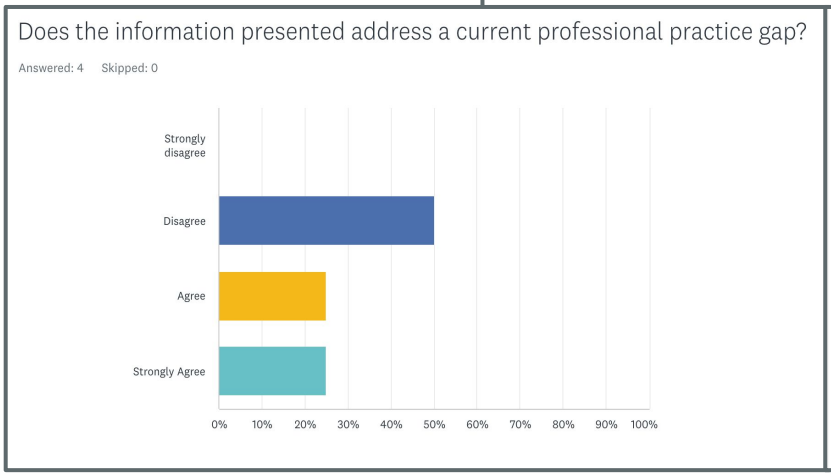
- Total responses: 4 responses
- Prevalence of gestational diabetes in the general population
  - Moderate, basic knowledge about: 4
- Recommended A1c screening guidelines for patients with a history of gestational diabetes
  - Moderate, basic knowledge about: 4
- What is the recommended frequency for A1c screening in people with a history of gestational diabetes?
  - Every 3 years: 4
- Long term health risks associated with a history of gestational diabetes
  - Moderate, basic knowledge about: 4

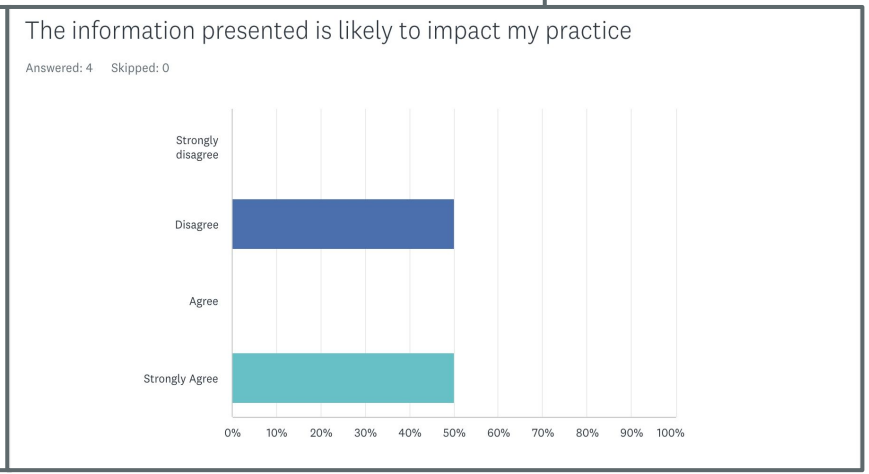
Self-Assessment of Knowledge



Results


Information shared is relevant to my practice
Answered: 4 Skipped: 0
Strongly Disagree
Disagree
Agree
Strongly agree
0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%


Does the information presented address a current professional practice gap?
Answered: 4 Skipped: 0
Strongly disagree
Disagree
Agree
Strongly Agree
0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%


The information presented is likely to impact my practice
Answered: 4 Skipped: 0
Strongly disagree
Disagree
Agree
Strongly Agree
0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Challenges

- Initial Process
  - Proposing too large of a practice change
  - Determining who would complete the screening
- During Initial Data Collection
  - Variations in charting the diagnosis within ECW
  - Not capturing diagnoses in outside documents if not reflected in chart
- During Intervention
  - Limited opportunities to meet with providers in-person
  - Provider engagement with survey
  - Switch to self-learning style than intended in-service style intervention
  - Lack of opportunity to summarize recommendations for practice
- Post Survey
  - Limited response rate
  - One person did the pre-survey but not the post-survey

Conclusions/Implications

- Attending QI meetings in the future may be beneficial
- Start small
- Start with something with an established workflow
- Further questions raised
  - Does a care gap actually exist?
  - Are patients being screened incidentally because they meet other criteria?
  - Do variations in charting lead to discrepancies in care?

References

ElSayed, N. A., Aleppo, G., Aroda, V. R., Bannuru, R. R., Brown, F. M., Bruemmer, D., Collins, B. S., Hilliard, M. E., Isaacs, D., Johnson, E. L., Kahan, S., Khunti, K., Leon, J., Lyons, S. K., Perry, M. L., Prahalad, P., Pratley, R. E., Jeffrie Seley, J., Stanton, R. C., & Gabbay, R. A. (2022, December 12). 15. management of diabetes in pregnancy: Standards of care in Diabetes-2023. American Diabetes Association.

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