

Preconception Care: Identifying Indicators to Reduce Pre-term BirthsKama

Maria Macaluso

Ashwini Kamath Mulki

Melanie B. Johnson MPA

Elaine Banerjee MD, MPH

Beth Careyva M.D.

See next page for additional authors

Follow this and additional works at: <https://scholarlyworks.lvhn.org/research-scholars-posters>



Part of the [Family Medicine Commons](#)

This Poster is brought to you for free and open access by LVHN Scholarly Works. It has been accepted for inclusion in LVHN Scholarly Works by an authorized administrator. For more information, please contact LibraryServices@lvhn.org.

Authors

Maria Macaluso; Ashwini Kamath Mulki; Melanie B. Johnson MPA; Elaine Banerjee MD, MPH; Beth Careyva M.D.; Katarzyna Jabbour PharmD, BCPS; Kyle Shaak BS; and Nicole M. Burgess BS

Preconception Care: Identifying Indicators to Reduce Pre-term Births

Maria Macaluso; Ashwini Kamath Mulki, MD; Melanie B Johnson, MPA; Elaine S Banerjee, MD, MPH; Beth A Careyva, MD; Katarzyna Jabbour, PharmD; Kyle Shaak, MPH; Nicole M Burgess, BS

Introduction

- The United States ranked 33 out of 36 developed nations in highest number of infant mortality
- Preconception care has shown to be effective in:
 - greatly helping prevent infant mortality
 - improving the health of the mothers
- Barriers to preconception care include:
 - Lack of insurance coverage
 - Limited accessibility

Objectives

1. Determine whether there is an association between preconception care and a decrease in the number of pre-term births
2. Determine whether any of the eleven preconception care indicators have a higher incidence of linkage to pre-term births
3. Learn about clinicians' approaches to preconception care

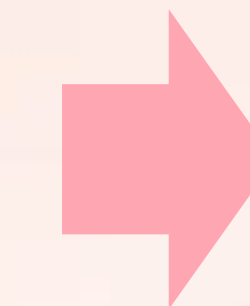
11 Preconception Care Indicators

- | | |
|--------------------------|--|
| 1. Pregnancy Intention | 7. Absence of STIs |
| 2. Access to Care | 8. Controlled Diabetes |
| 3. Multivitamin Use | 9. Avoidance of Teratogenic Medication |
| 4. Tobacco Avoidance | 10. Controlled Hypertension |
| 5. Controlled Depression | 11. Avoidance of Illicit Substances |
| 6. Healthy Weight | |

Methods

Part 1

Appointments, medications, and other screenings were examined through Epic to identify the presence of the 11 preconception care indicators in 100 women



The data from each patient's chart was recorded in REDCap, which is used to store and analyze research databases

Part 2

Interviewed primary care physicians using a set of standard questions to collect data on their approach to preconception care including which indicators the clinicians focus on, linkage to preterm births, and barriers they face

Results

Part 1

- During the initial chart audit of 100 patients, it was necessary to modify exclusion criteria to better interpret patient medical data for analysis of preconception care indicators

Part 2

- During the interviews, the physicians discussed the lack of standard guidelines in offering preconception care to women
- The most significant risk factors that these physicians look for are depression, teratogenic medications, and obesity
- Physicians rarely speak to men about preconception care

Conclusion

1. Once the exclusion criteria of patients are modified, an analysis of the chart audits will assist with determining infrastructure for providing preconception care
2. Better understanding of preconception care indicators will help to identify and reduce risk factors of pre-term birth, resulting in healthier birth outcomes for babies and mothers long term

Future Research

- Additional Interviews and focus groups will further help identify how preconception care is provided in a clinical setting and barriers to providing this care
- Preconception Care for Men
 - Important to ensure that men have healthy sperm
 - Only around 8.3% of men receive any preconception care
 - In comparison to women, men receive preconception care much less frequently in publicly funded clinics

References

- Dean, S. V., Mason, E., Howson, C. P., Lassi, Z. S., Imam, A. M., & Bhutta, Z. A. (2013). Born too soon: care before and between pregnancy to prevent preterm births: from evidence to action. *Reproductive health*, 10 Suppl 1(Suppl 1), S3. <https://doi.org/10.1186/1742-4755-10-S1-S3>
- Frey, K. A., Engle, R., & Noble, B. (2012). Preconception healthcare: What do men know and believe? *Journal of Men's Health*, 9(1), 25-35. <https://doi.org/10.1016/j.jomh.2011.11.001>
- Maternal and Child Health Journal, 21(11), 2025–2039. <https://doi.org/10.1007/s10995-017-2370-4>
- M'hamdi, H. I., van Voorst, S. F., Pinxten, W., Hilhorst, M. T., & Steegers, E. A. (2017). Barriers in the Uptake and Delivery of Preconception Care: Exploring the Views of Care Providers. *Maternal and child health journal*, 21(1), 21–28. <https://doi.org/10.1007/s10995-016-2089-7>
- Robbins, C. L., Gavin, L., Zapata, L. B., Carter, M. W., Lachance, C., Mautone-Smith, N., & Moskosky, S. B. (2016). Preconception Care in Publicly Funded U.S. Clinics That Provide Family Planning Services. *American Journal of Preventive Medicine*, 51(3), 336–343. <https://doi.org/10.1016/j.amepre.2016.02.013>
- United Health Foundation. (n.d.). Infant Mortality. *America's Health Rankings*. Retrieved July 8, 2020, from <https://www.americashealthrankings.org/learn/reports/2018-annual-report/findings-international-comparison>