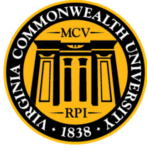


Virginia Commonwealth University
VCU Scholars Compass

Graduate Research Posters | Graduate School

2020

# Centering High Risk Pregnancies Interprofessionaly (CHRPI) to Reduce Racial Disparities in Pregnancy Outcomes

Dongjin Suh B.S.
*Virginia Commonwealth University*

Dhruv Srinivasachar B.S.

WintWar Phyo B.S.

Asma Khan B.S.

Sarah H. Milton, M.D.

Follow this and additional works at: https://scholarscompass.vcu.edu/gradposters

Part of the Medicine and Health Sciences Commons

## Downloaded from

Suh B.S., Dongjin; Srinivasachar B.S., Dhruv; Phyo B.S., WintWar; Khan B.S., Asma; and Milton, M.D., Sarah H., "Centering High Risk Pregnancies Interprofessionaly (CHRPI) to Reduce Racial Disparities in Pregnancy Outcomes" (2020). *Graduate Research Posters.* Poster 40.
https://scholarscompass.vcu.edu/gradposters/40

This Poster is brought to you for free and open access by the Graduate School at VCU Scholars Compass. It has been accepted for inclusion in Graduate Research Posters by an authorized administrator of VCU Scholars Compass. For more information, please contact libcompass@vcu.edu.

VCU

# Centering High Risk Pregnancies Interprofessionally (CHRPI) to Reduce Racial Disparities in Pregnancy Outcomes

Dongjin Suh B.S.[1], Dhruv Srinivasachar B.S. [1], Wint War Phyo B.S.[2], Asma Khan B.S.[2], Sarah H. Milton, M.D.[1,3]

[1] Virginia Commonwealth University School of Medicine, Richmond, VA, USA. [2] Virginia Commonwealth University School of Pharmacy, Richmond, VA, USA.
[3] Virginia Commonwealth University Health System, Richmond, VA, USA.

## Introduction

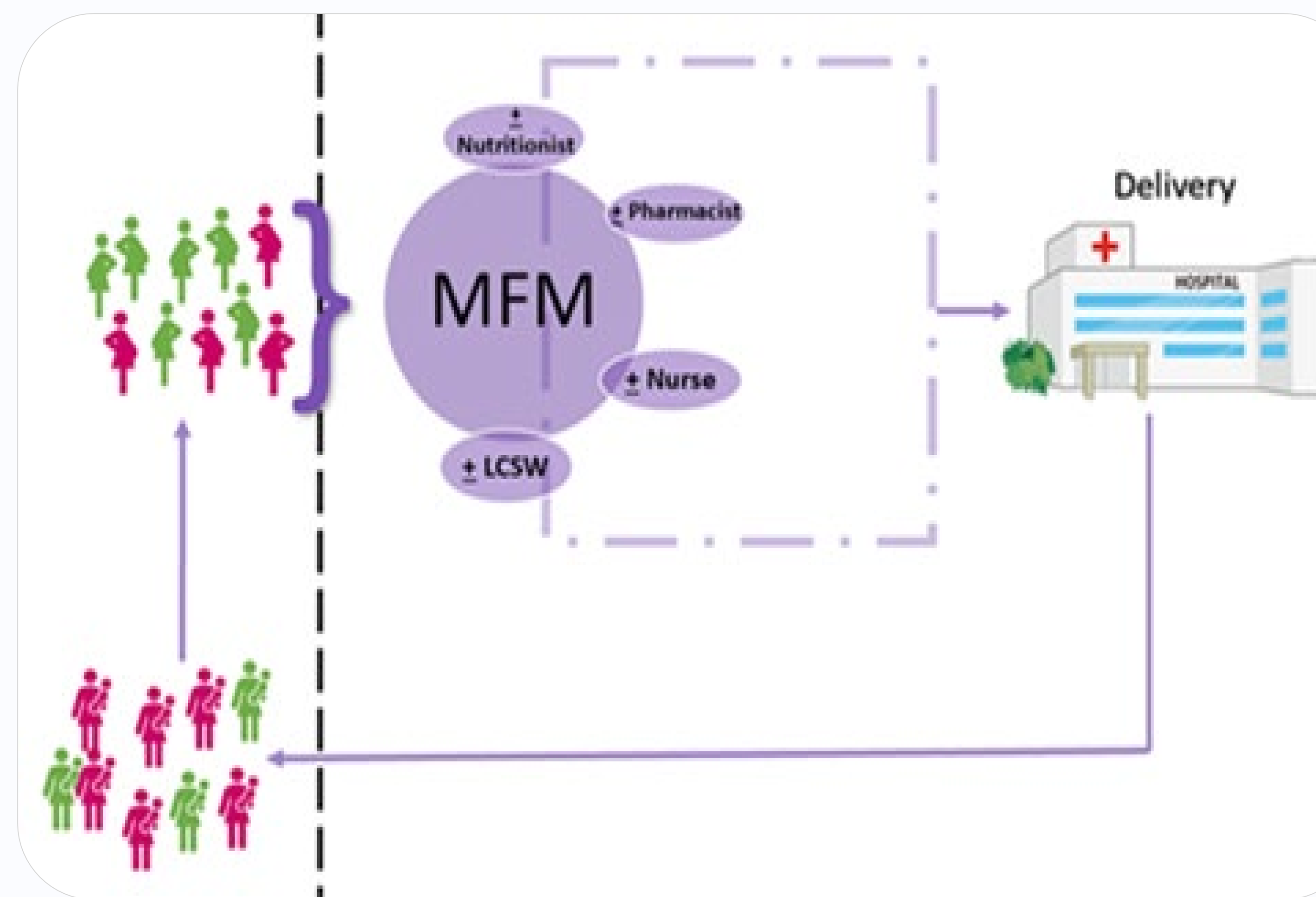
- Significant racial disparities exist in pregnancy-related outcomes in the U.S [1].
- Pregnancy related mortality is the highest among racial minorities (African American, non-Hispanic American Indian/Alaska Native). Cardiovascular complications such as preeclampsia and gestational diabetes were major drivers.
- Reasons for this disparity is multifactorial. However, lack of adequate prenatal care due to socioeconomic factors and implicit bias in healthcare settings have shown to be contributory. This calls for a new prenatal care model that address these known issues.
- Centering High Risk Pregnancies Interprofessionally (CHRPI) is an innovative prenatal care model designed to reduce mortality in patients with cardiovascular risk factors and conditions particularly prevalent in African Americans, Hispanics, and Native Indians by placing significant emphasis on multidisciplinary care, nutrition, education, and transition to primary care after delivery.

## Objective

To introduce group prenatal care and propose how CHRPI model can address limitations of traditional prenatal to reduce maternal and infant mortalities among racial minorities.

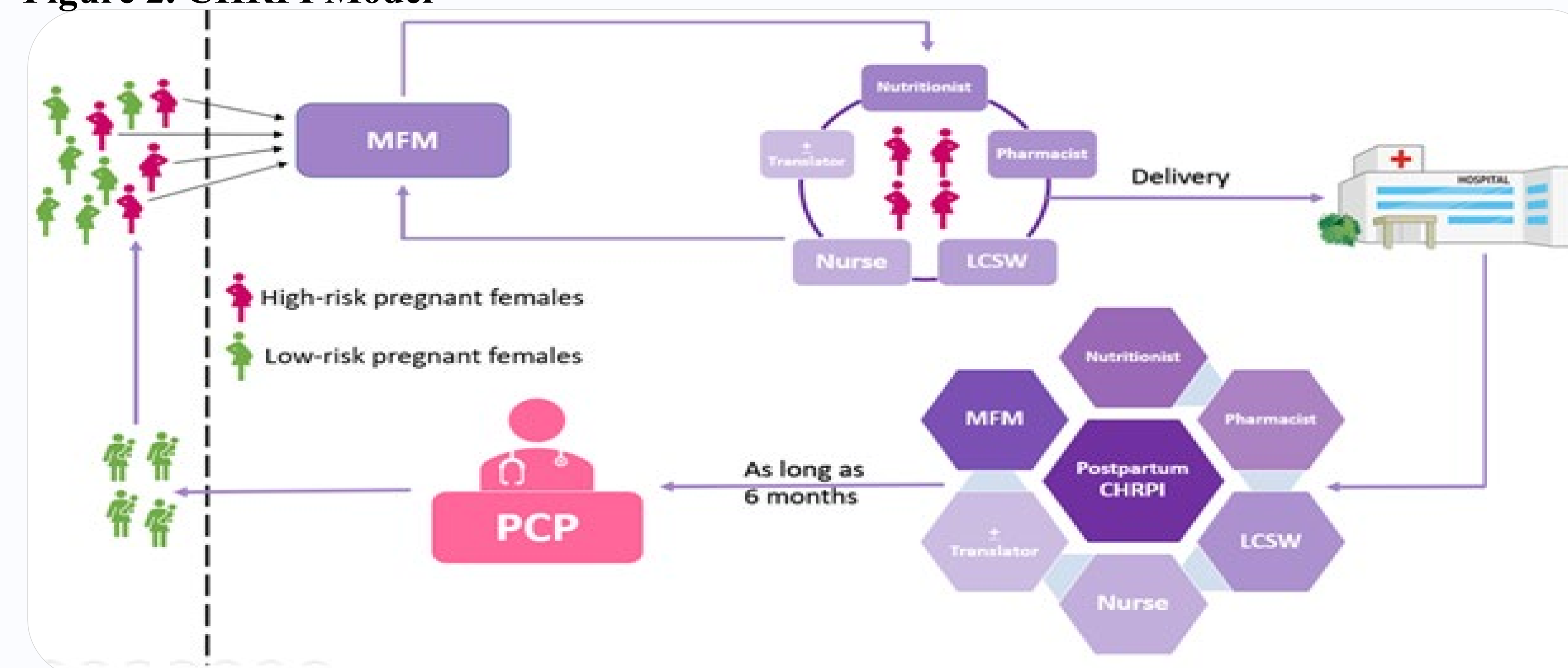
## Methods

**Figure 1. Traditional Prenatal Care Model**




- Current practice has maternal-fetal medicine (MFM) specialists see patients between two to four weeks depending on their status. Changes in patient status between appointments are often missed, and potential interventions are delayed.
- Limited interaction with other healthcare workers such as nutritionists, pharmacists, social workers that play critical role in managing risk factors directly related to pregnancy related mortality (eg. nutrition, blood pressure readings, blood sugar checks, etc.)
- Poor transition to primary care during postpartum period often lead to uncontrolled or worsening chronic conditions (eg. DM) that threaten subsequent pregnancies. This is a huge missed opportunity.[2]

**Figure 2. CHRPI Model**




- CHRPI model is a group outpatient care of patients with cardiovascular risk-factors
- All high-risk patients are seen weekly throughout pregnancy; alternating each week between MFM and an interprofessional peer support group.
- After initial evaluation by MFM, patients are placed in groups by expected course of pregnancy, social, and medical needs. This is also an opportunity for families of diverse backgrounds to provide peer support and build a sense of community. Group will be facilitated by a multidisciplinary team and receive education on nutrition, insulin management, alarm symptoms and etc. Patient progress is communicated with MFM.
- Postnatal group care up to 6 months to establish plan of care for newly diagnosed conditions or risk-factors with primary care physician to protect future pregnancies.

## Expected Results

1. Reduced rate of maternal and infant mortality, pre-term birth, and NICU admissions.
2. Reduced rate of post-partum development of CVD.
3. Reduced incidents of racial discrimination in healthcare setting.
4. Increased prenatal care satisfaction across all age groups and racial/ethnic backgrounds.

## Conclusion

CHRPI model allows for adequate interaction between patients and interprofessional team of healthcare workers without compromising necessary surveillance by MFM.

Empowers patients to support one another through shared sense of unity and community.

## Limitations

Group prenatal care has not been tried on high-risk obstetric patients.

Expected results are based on outcomes of previous clinical trials of group prenatal care on relatively healthy patients. [3]

## References

1. Petersen EE, Davis NL, Goodman D, et al. Racial/Ethnic Disparities in Pregnancy-Related Deaths - United States, 2007–2016. CDC Morbidity and Mortality Weekly Report (MMWR) https://www.cdc.gov/mmwr/volumes/68/wr/mm6835a3.htm. Updated September 9, 2019. Assessed April 4, 2020.
2. Aye CY, Boardman H, Leeson P. Cardiac disease after pregnancy: A growing problem. *Eur Cardiol*. 2017; 12(1):20-23. doi: 10.15420/ecr.2017:4:1
3. Carter EB, Temming LA, Akin J, Fowler S, Macones GA, Colditz GA, & Tuuli MG. (2016). Group Prenatal Care Compared With Traditional Prenatal Care: A Systematic Review and Meta-analysis. Obstetrics & Gynecology, 128(3), 551-561.