

# Cardiovascular Disease and Maternal Mortality

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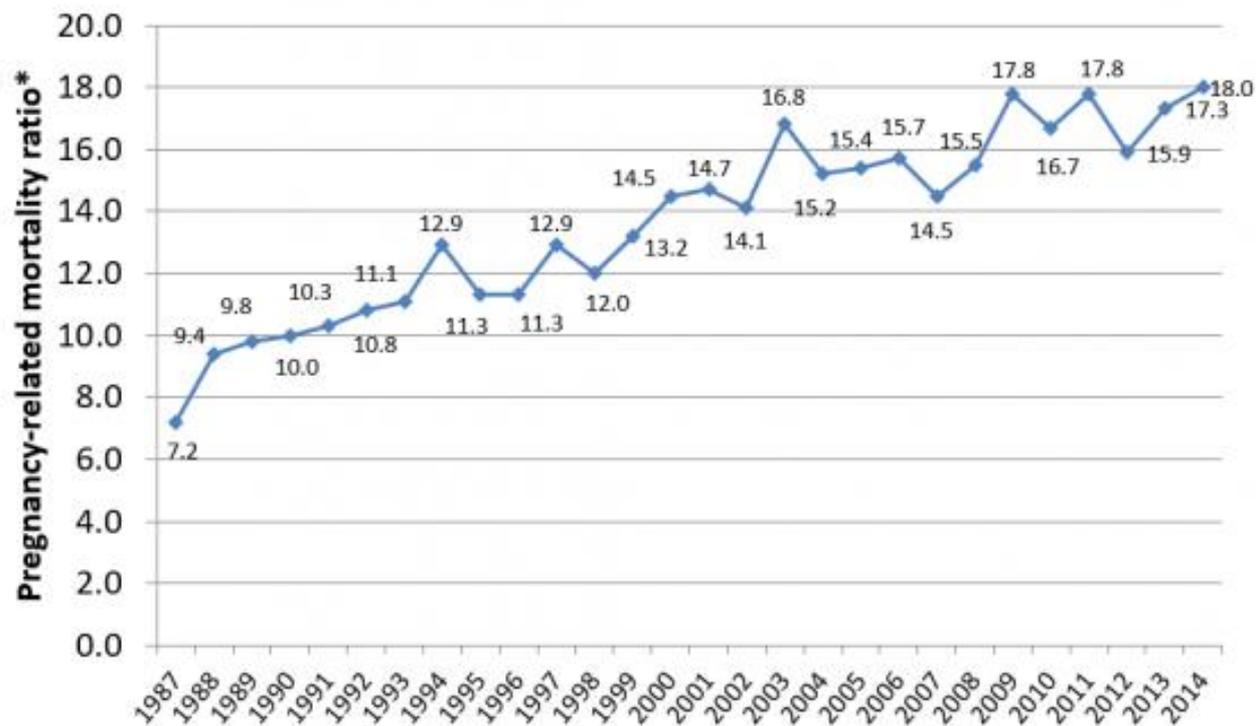
# Disclosure

- No conflicts on interest

# Objectives

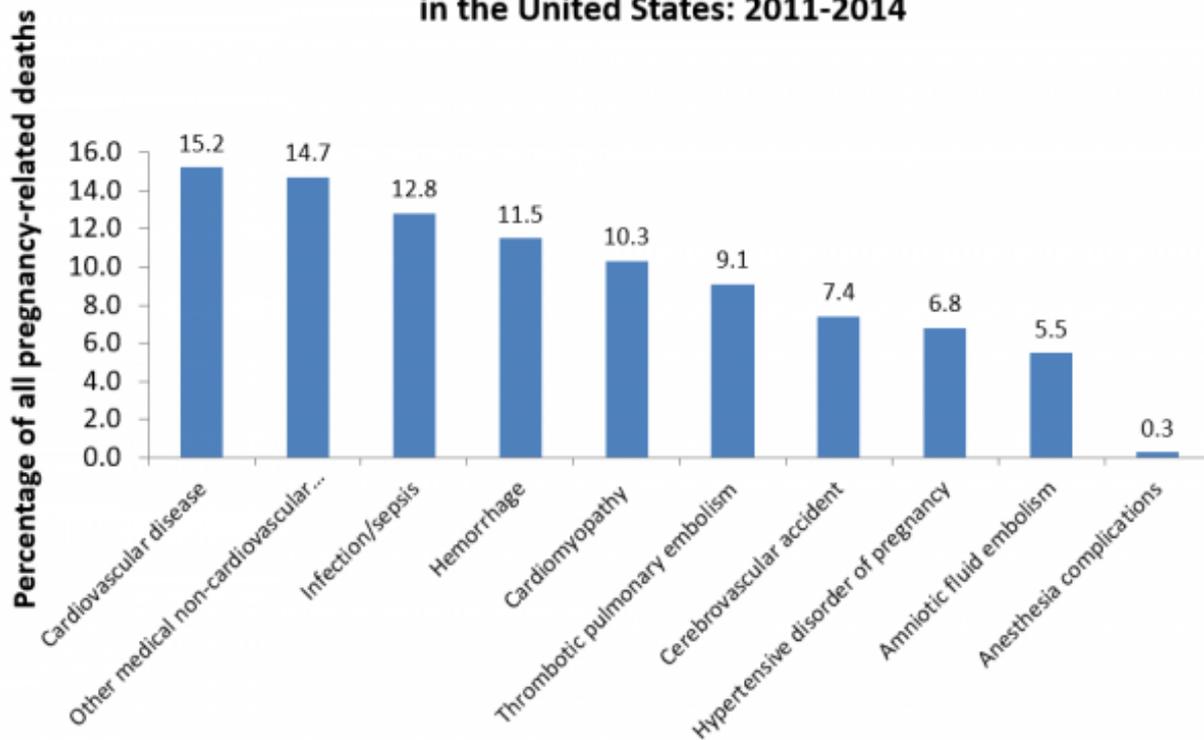
- Brief overview of maternal mortality nationally and in Texas
- Introduce initiatives to eliminate maternal mortality
- Review maternal deaths related to cardiovascular disease (CVD) in California
- Discuss initiatives to reduce maternal mortality due to CVD

## Trends in pregnancy-related mortality in the United States: 1987–2014



\*Note: Number of pregnancy-related deaths per 100,000 live births per year.

## Causes of pregnancy-related death in the United States: 2011-2014



Note: The cause of death is unknown for 6.5% of all pregnancy-related deaths.

# Maternal Mortality in Texas

- In 2012, 89 maternal deaths occurred during pregnancy or within 1 year of pregnancy
- 38% (34 cases) were pregnancy-related deaths
- 56% (50 cases ) were pregnancy-associated deaths
- 56 maternal deaths occurred during pregnancy or within 42 days postpartum
- MMR 14.6 maternal deaths per 100,000 live births

Figure B3: Task Force rating of chance of preventing pregnancy-related deaths through better care and/or management during/after pregnancy by cause of death, Texas, 2012

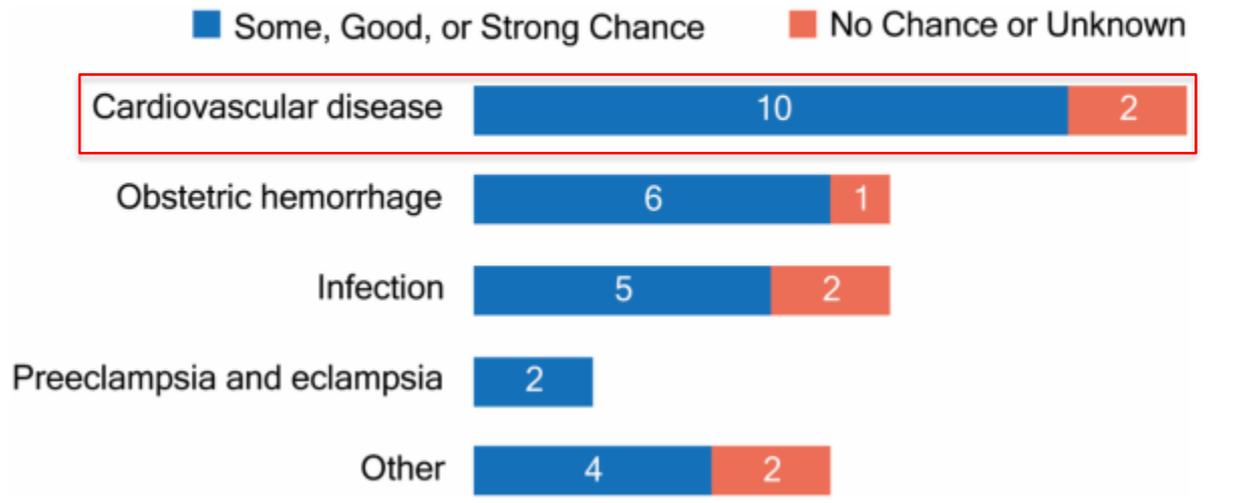


Figure B1: Pregnancy-related mortality rate by race/ethnicity, Texas, 2012

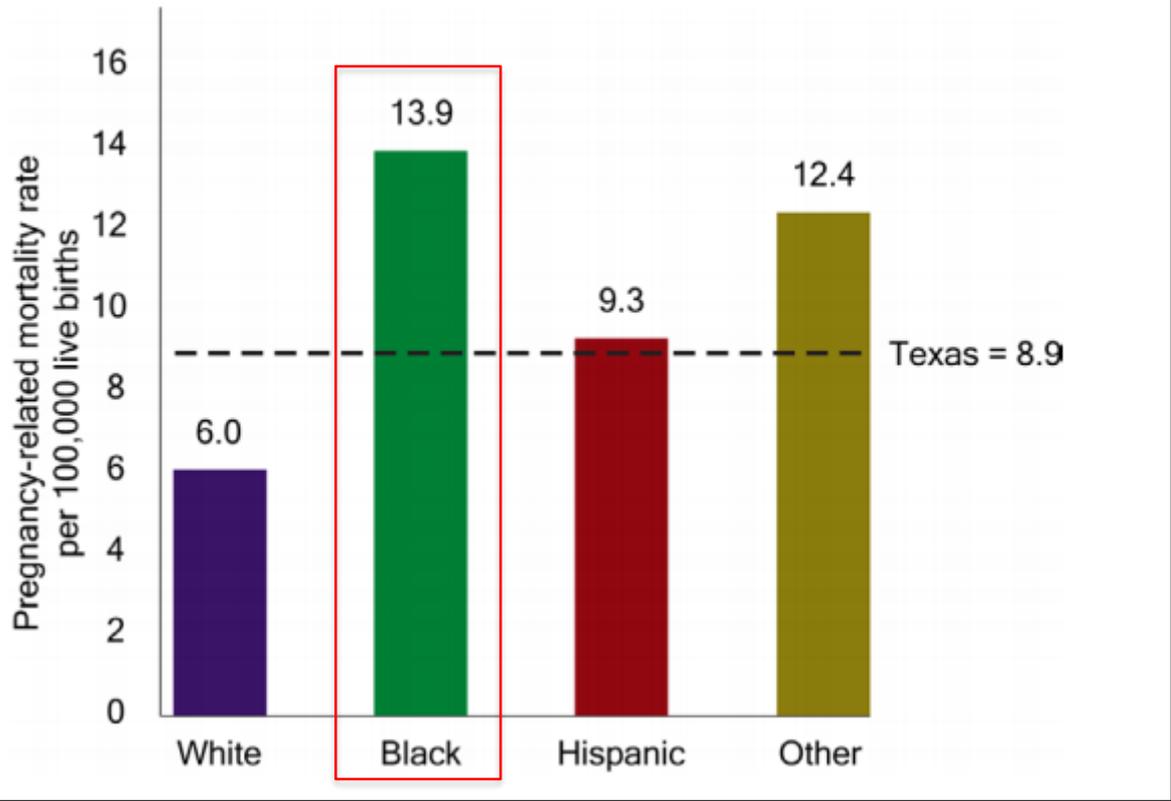
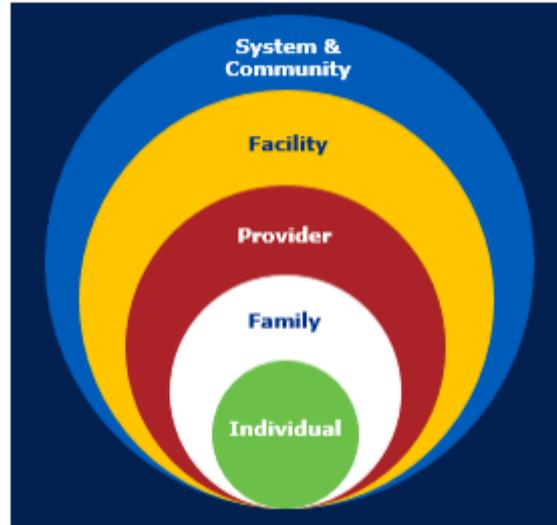


Figure B4: Domains of Contributing Factor Themes in a Social-Ecological Model





The American College of  
Obstetricians and Gynecologists  
WOMEN'S HEALTH CARE PHYSICIANS



Society for  
Maternal-Fetal  
Medicine

# OBSTETRIC CARE CONSENSUS

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Reaffirmed 2016

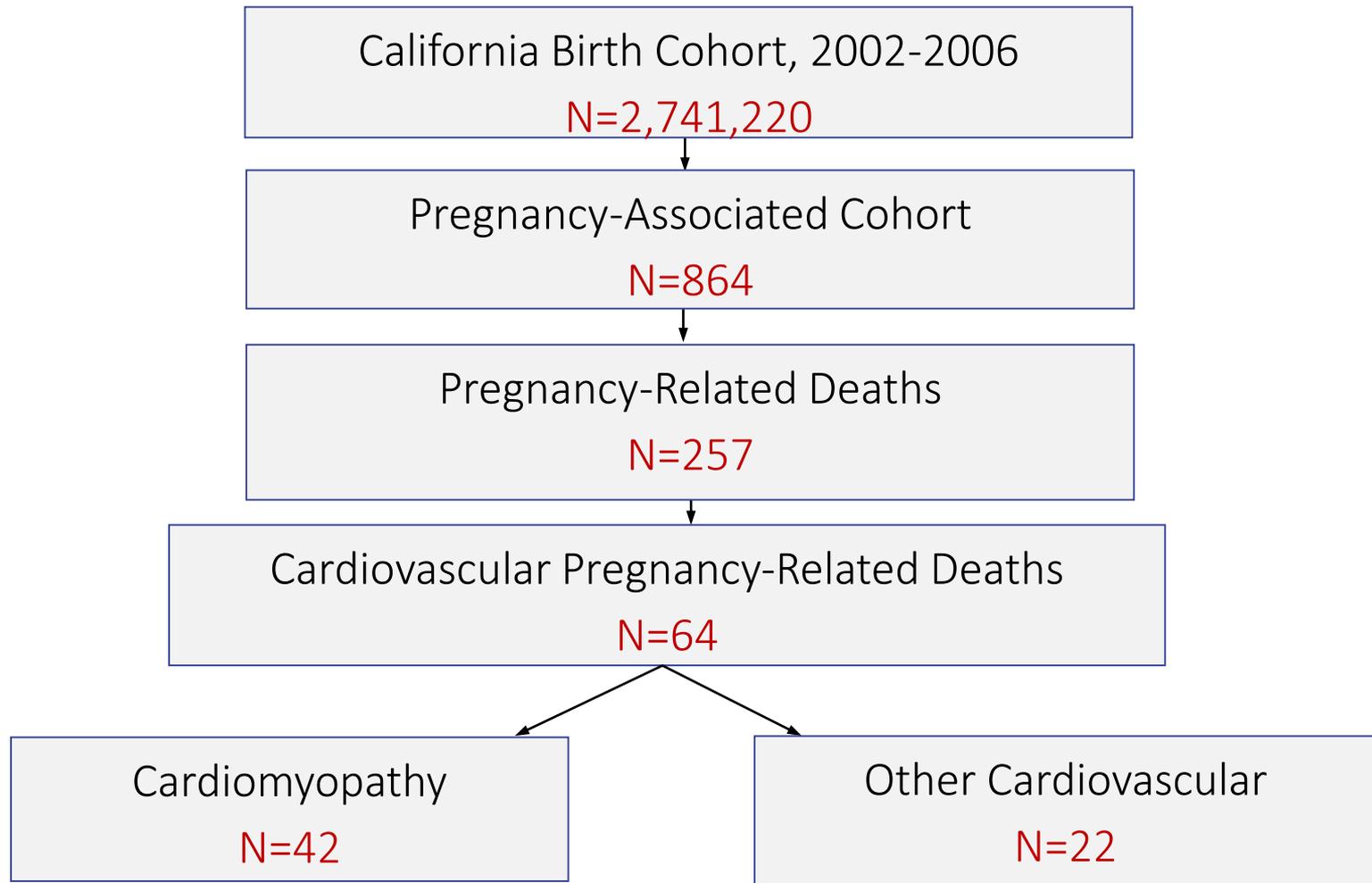
## Levels of Maternal Care



# ALLIANCE FOR INNOVATION ON MATERNAL HEALTH **A** **I** **M**

# CMQCC

California Maternal  
Quality Care Collaborative



Cardiomyopathy\*

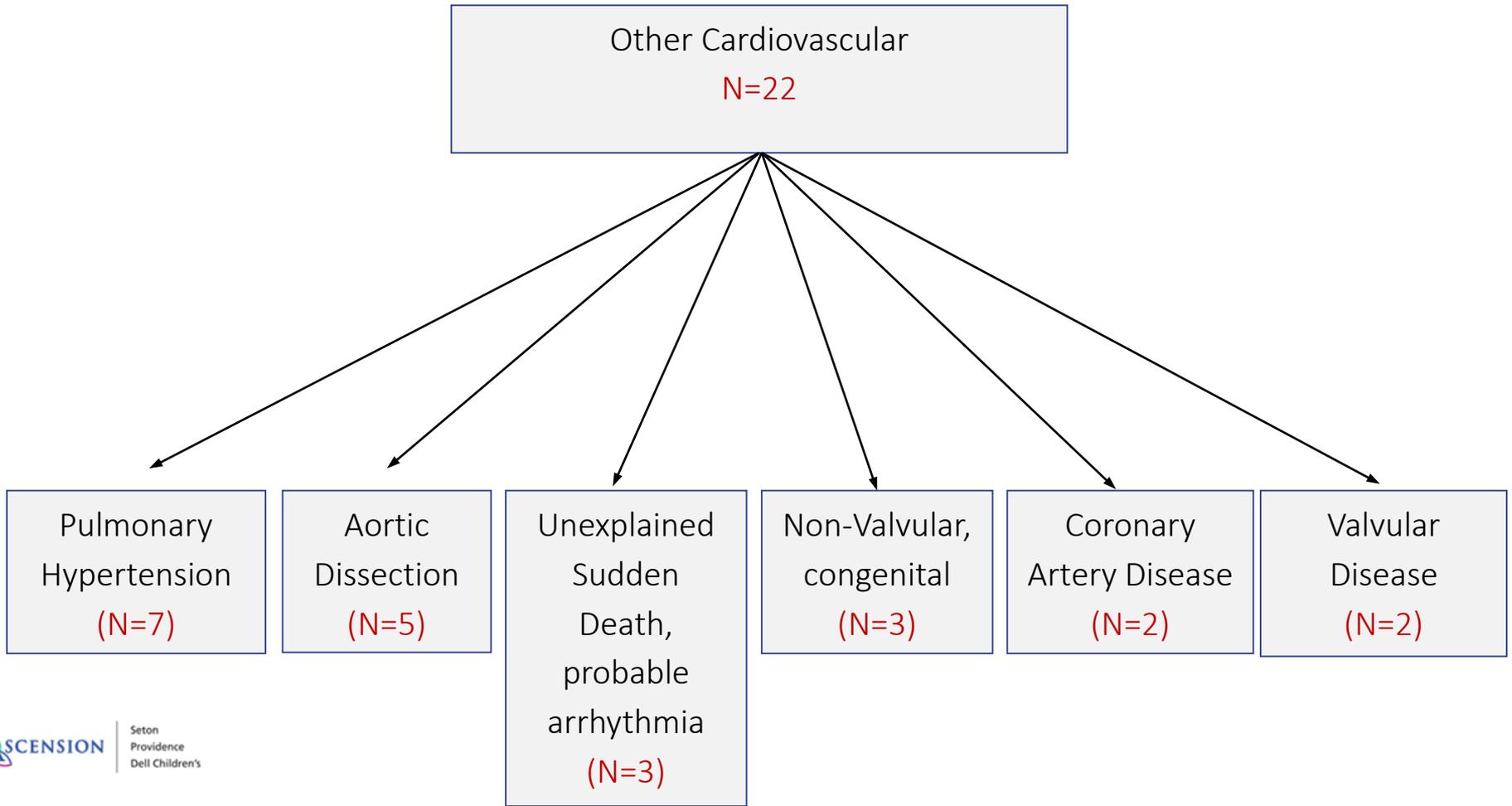
N=42

Dilated Cardiomyopathy

N=29 (69%)

Hypertrophic Heart Disease

N=10 (24%)

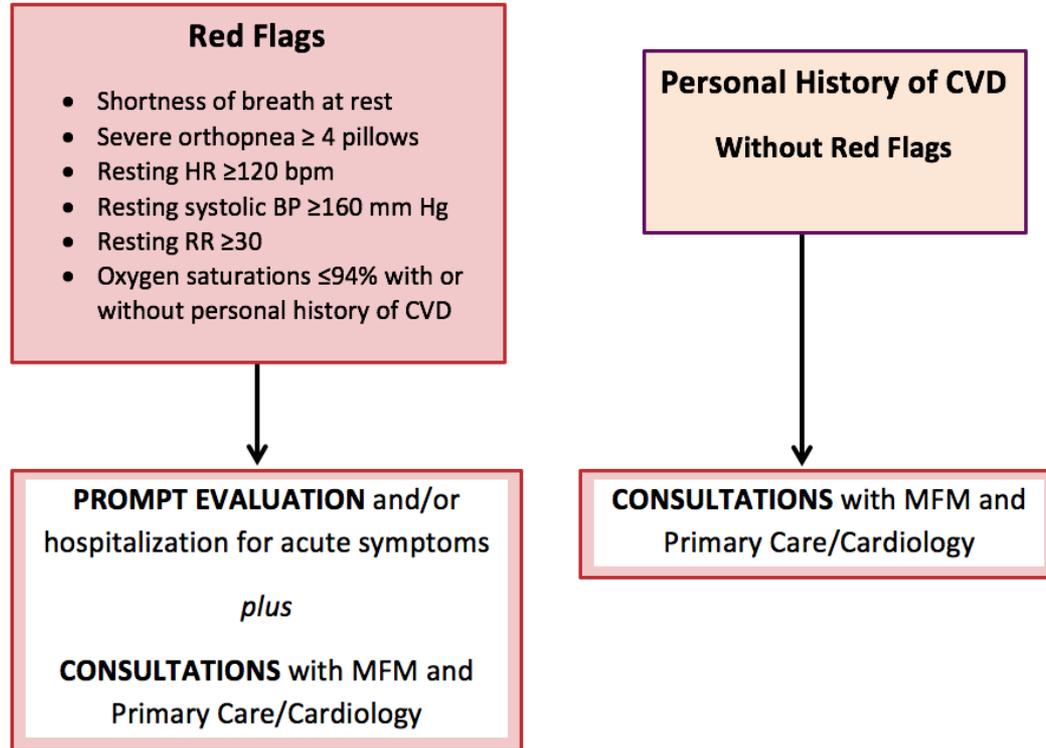


## Improving Health Care Response to Cardiovascular Disease in Pregnancy and Postpartum

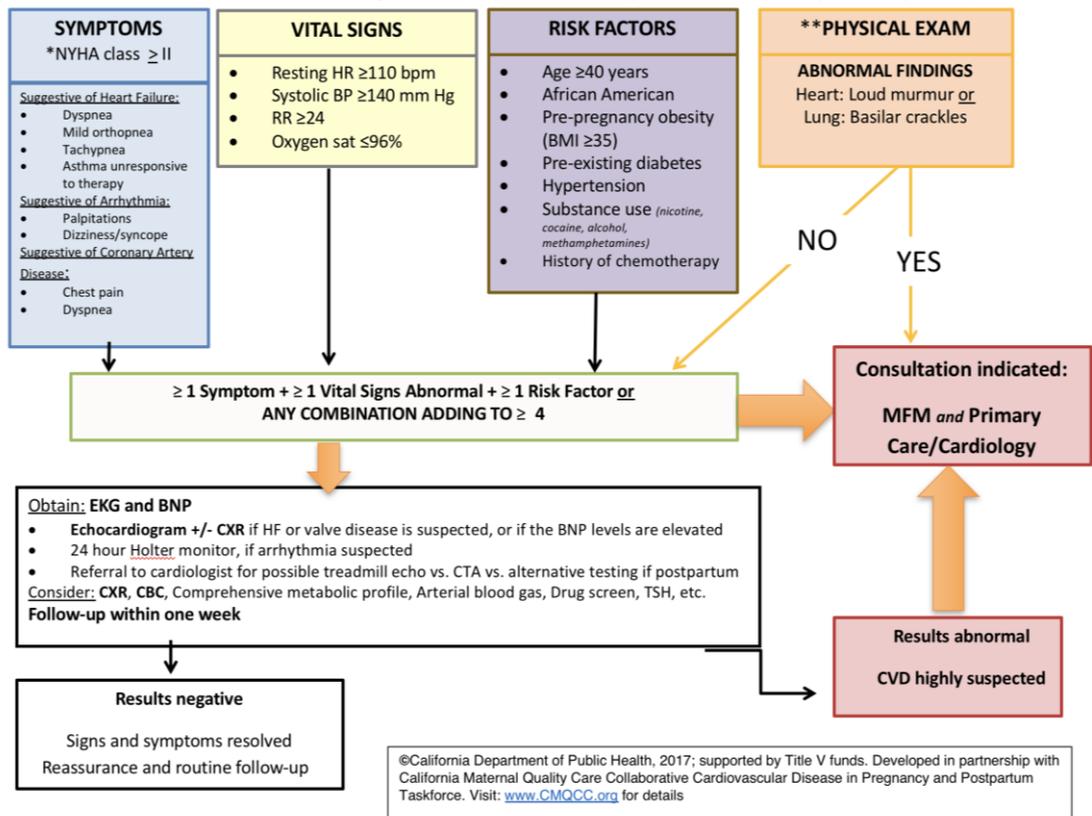
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# CVD Assessment Algorithm For Pregnant and Postpartum Women



(No Red Flags and/or no personal history of CVD, and hemodynamically stable)



# Conclusions

- The majority of pregnancy-related maternal deaths due to CVD were preventable.
- Improving risk screening is vital for early recognition of maternal risk factors that lead to mortality and morbidity
- A high index of suspicion, early diagnosis, appropriate referrals and follow up are the key elements to a successful outcome, thereby reducing maternal mortality and morbidity.

# Questions?

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