

Understanding the Surge in Syphilis Prevalence among Women of Childbearing Age in Michigan

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Introduction

In recent years, there has been an increased incidence of syphilis among women of childbearing age in the U.S. and Michigan. In 2022, there were 3,755 cases of congenital syphilis in the U.S., which is a 30.6% increase compared to 2021¹. Untreated syphilis in pregnant women can lead to severe clinical complications and infant mortality. In response to this public health concern, we worked with Disease Intervention Specialists (DIS) employed by the Michigan Department of Health and Human Services (MDHHS) to understand the factors contributing to this surge.

Aims and Objectives

Our objective was to identify population risk and social factors contributing to the recent surge in syphilis diagnoses among females based on the perceptions of DIS.

Methods

This research study utilized a survey that was administered to DIS employed by MDHHS, who managed at least one syphilis case. The survey utilized Likert scale questions and open-ended inquiries to uncover

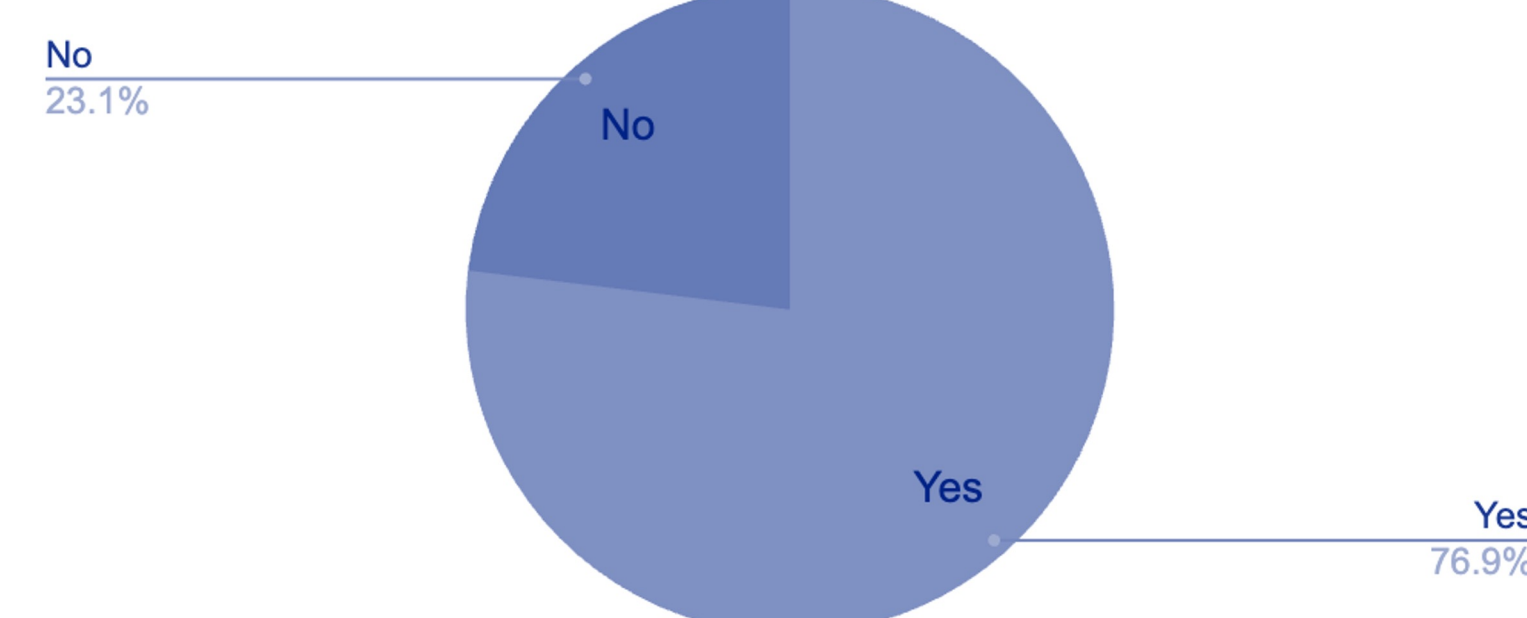
barriers to care and to assess characteristics and risk behaviors among females diagnosed with syphilis. The survey was sent out electronically to DIS across the state and allowed for anonymous responses. Data from Likert scale items were analyzed using IBM SPSS Statistics statistical software. Responses to the open-ended questions were subjected to thematic analysis. Below is an example of likert-scale question choices.

Likert- Scale	Coded Value
Extremely unlikely	1
Unlikely	2
Likely	3
Extremely likely	4

Results

Findings from our survey indicate that approximately 76% of DIS responsible for managing syphilis cases among women in MI completed the survey. They represented 23 distinct counties across MI, with Wayne, Oakland, and Detroit City exhibiting the highest prevalence rates. Approximately 84.6% of participants worked with more than 20 females diagnosed with syphilis, and about 76.9% had encountered at least one case of congenital syphilis.

Were there any cases of congenital syphilis in the counties in which you work in the last three years?



Question	N	Mean
Based on your perceptions and observations, are untreated partners a likely driver for the recent rise in the prevalence of syphilis among females in MI?	13	3.46
Based on your perceptions and observations, is a lack of knowledge about syphilis risks/treatment a likely driver for the recent rise in the prevalence of syphilis among females in MI?	13	3.23
Based on your perceptions and observations, is lack of access to timely treatment a likely driver for the recent rise in the prevalence of syphilis among females in MI?	13	3

Above is an example of a few questions from the survey. The survey results revealed that several factors such as untreated partners, lack of knowledge about syphilis risks and treatment, and lack of access to timely treatment were perceived to contribute to the recent increase in syphilis prevalence among women in MI. An alarming 92.3% of participants believed it was highly likely that the lack of timely treatment access was a driving factor behind the disease's resurgence. Additionally, 53.9% of DIS identified substance use as a moderate to extreme barrier to seeking care among affected females.

Conclusions

Our study reflected key insights from DIS regarding the increase in syphilis prevalence among women of childbearing age in MI. The results from the survey highlighted the impact of social determinants of health such as homelessness, lack of English proficiency, and financial barriers. Additionally findings regarding barriers to care, such as substance use, further emphasize the need for targeted intervention. The survey findings informed the development of focus group questions and a focus group discussion with DIS from Michigan, to further explore their perceptions of the social determinants and drivers of disease.

References

1. CDC Sexually transmitted infections surveillance, 2022.

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