



# WAYNE STATE UNIVERSITY

## Human Cytomegalovirus: A Lack of Counseling by OB/GYNs

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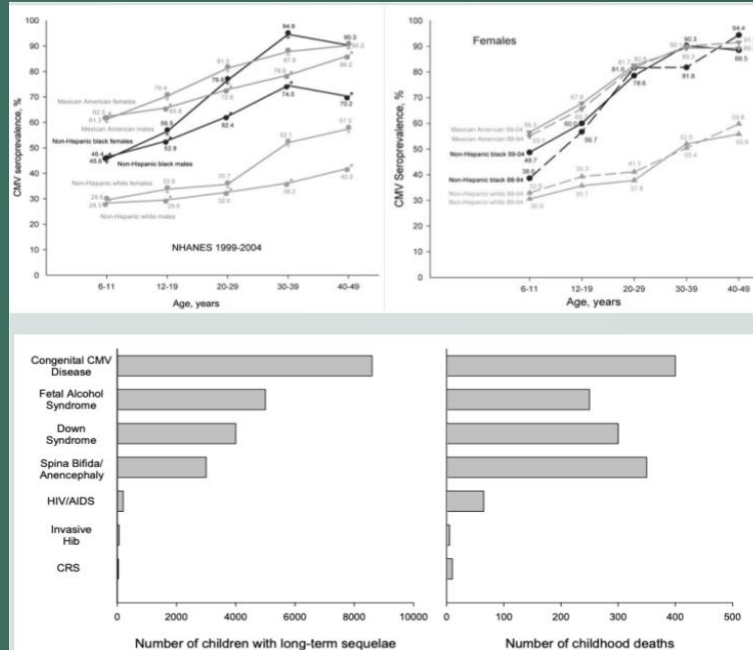


## ABSTRACT

**OBJECTIVES.** Unlike commonly discussed health concerns, human cytomegalovirus (HCMV) is a fairly unknown virus. HCMV can be passed vertically and can cause long term birth defects. HCMV is rarely discussed in counseling session between an OB/GYN and their patient. The aim of this study involves measuring the rates of HCMV counseling by OB/GYNs to observe the awareness of HCMV in women of reproductive age. **METHODS.** Twelve OB/GYNs affiliated with the Wayne State University School of Medicine were contacted to determine their knowledge of HCMV. Questions regarding knowledge of birth defects and infant mortality rates due to HCMV were asked about in this survey. Various social determinants of health and environmental factors related to HCMV were also included. **RESULTS.** Although no responses were obtained from OBGYNs, literature suggests that there is a lack of counseling about HCMV performed by healthcare providers to women of reproductive age. **CONCLUSIONS.** From a global and local perspective, HCMV is not widely known or discussed. This study attempts to show the lack of counseling by healthcare providers to raise awareness to HCMV and its vertical transmission.

## INTRODUCTION

- HCMV is most commonly found with mother-infant interactions. HCMV is a virus that can cause congenital defects in newborns.
- These birth defects include: Miscarriages, Stillbirths, Hearing impairments, Vision impairment, Cerebral palsy, Cognitive impairments
- HCMV is not well known and it is important for OB/GYNs to talk to their patients that are expecting mothers or current mothers about how to prevent HCMV.
- HCMV is prevented by talking to a healthcare provider of strategies, maintaining good hygiene, not sharing utensils, towels, etc.



PMID: 15967030, 20426575

## METHODS

- 12 OBGYNs affiliated with Wayne State University School of Medicine contacted through email and asked to answer questions:
  - Do you know what human Cytomegalovirus is?
  - Do you meet with patients as part of your job?
  - If yes, do you counsel pregnant women on human Cytomegalovirus?
  - If yes, what percentage of your patients do you counsel about human Cytomegalovirus?
  - Do you see newborns with congenital human Cytomegalovirus?
  - Do you think women need more counseling about human Cytomegalovirus by their primary care physician or their OBGYN?
  - What kind of effects do environmental factors have on HCMV within the urban community?
  - Roughly how many patients from 100 patients do you see with HCMV?

## RESULTS

- No responses were received from the emails sent out
- Previous research showed statistics of OB/GYN and women's knowledge of HCMV

TABLE 2. ESTIMATED PERCENTAGES OF SOURCES OF INFORMATION AMONG U.S. WOMEN WHO ARE AWARE OF CONGENITAL CMV

| Source  | Estimated | 95% CI <sup>a</sup> |
|---|-----------|---------------------|
| Doctor, hospital, clinic, other health professional | 29        | 25-34               |
| Don't know  | 28        | 24-33               |
| Newspaper or magazine                               | 19        | 15-23               |
| Brochures, fliers, pamphlets, or posters            | 14        | 11-18               |
| Television  | 13        | 10-17               |
| Educational program at school or work               | 12        | 9-16                |
| Family or friend                                    | 9         | 6-12                |
| Internet  | 4         | 2-7                 |
| Radio   | 2         | 1-4                 |
| Toll-free hotline                                   | 1         | 0-3                 |

<sup>a</sup>Percentages do not sum to 100 because women could have reported more than one source, and percentages are weighted to be nationally representative estimates.

<sup>b</sup>CI, confidence interval.

PMID: 18537486

|  |        |
|--|--------|
| Seronegative women during reproductive years               | 30-50% |
| PMID: 19800841   |        |
| Women likely to develop primary infection during pregnancy | 1%     |
| PMID: 28459427   |        |
| Asymptomatic newborns who develop long term sequelae       | 20%    |
| PMID: 19800841   |        |
| Women stating they know about HCMV                         | 14%    |
| PMID: 18537486   |        |
| OBGYNs reporting previous HCMV counseling                  | <44%   |
| PMID: 18537486   |        |

## CONCLUSIONS

- Currently, only ten states require education regarding HCMV for healthcare professionals and providers.
  - These states include Colorado, Hawaii, Idaho, Illinois, Iowa, Minnesota, New York, Oregon, Texas, and Utah.
  - Tennessee requires healthcare providers to educate women on HCMV that are of childbearing age between 12-51 years. Utah is the only state that has funded education.
- Educational legislation has been proposed in Pennsylvania and Michigan, and while these are steps towards improvement, more states should be aware and propose their own legislation in order to curb the rates of HCMV in the country.

## PUBLIC HEALTH IMPLICATIONS

- Prevention is a major pillar of public health, and being able to take certain measures to prevent HCMV is important for everyone
- Physicians play a role in patient education. OB/GYNs are a great source of information related to women's health
- Public health research is what allows us to understand the prevalence of HCMV in communities and determine statistics and facts regarding the virus
- Interventions at the local level helps to cater to different populations to determine their specific requirements for maintaining public health
- Public health action towards awareness is how recommendations like newborn screening came to be

# Introduction

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# Methods

- 12 OBGYNs affiliated with the Wayne State School of Medicine were contacted through email and asked to answer a set of questions regarding human cytomegalovirus.
- A literature review was conducted in order to gather research and data to see if patients were aware of HCMV and if their doctors were properly educating their patients on the virus.





# Results

- No responses were received from the emails that were sent.
- A literature review showed statistics regarding OBGYNs and women's knowledge of HCMV.

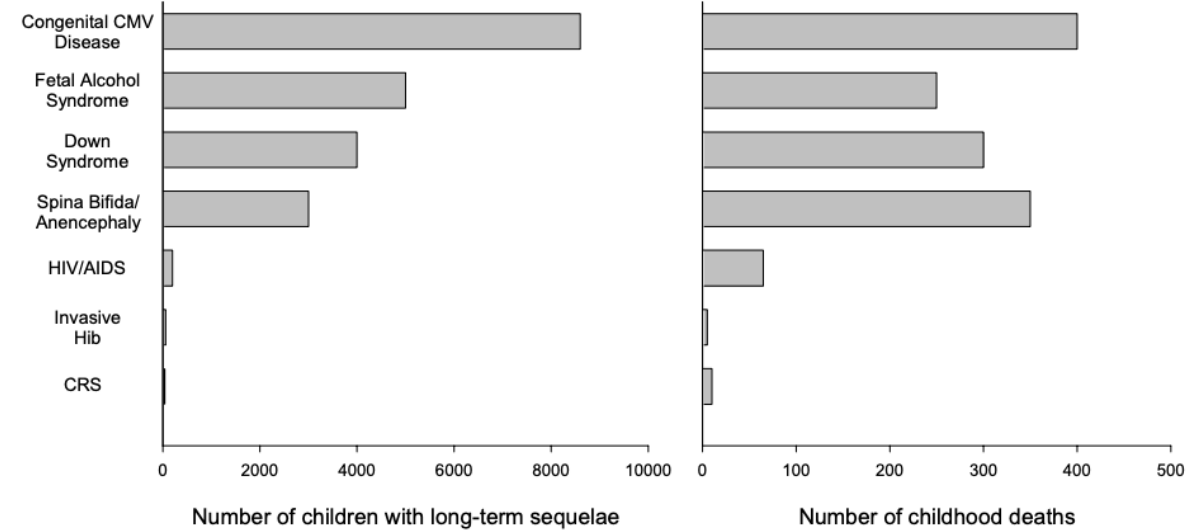
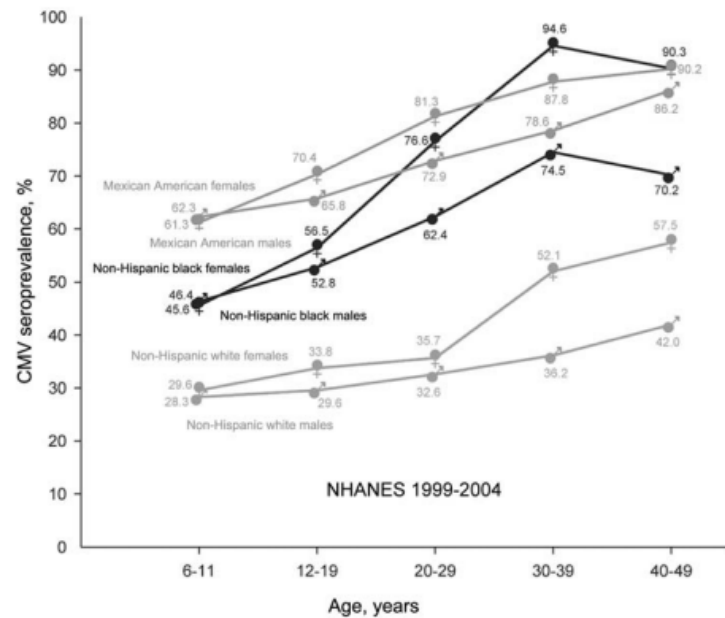
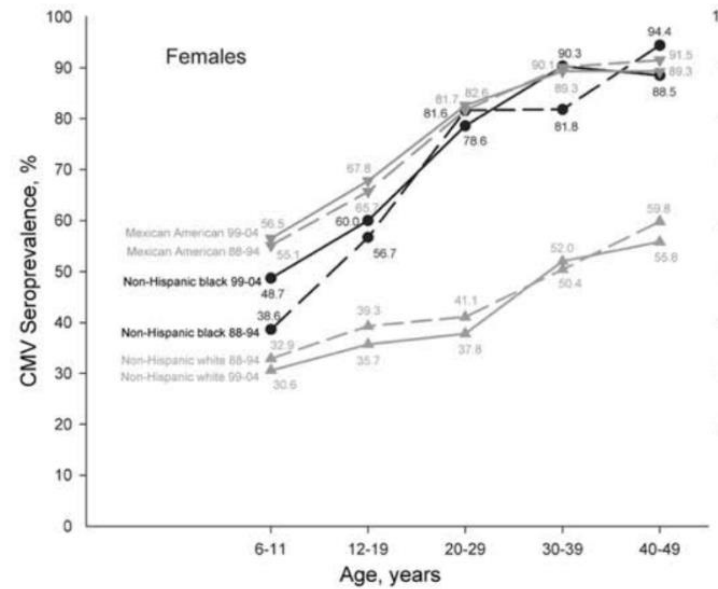


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