

# Training and Confidence Levels of Interdisciplinary Professional Practice in the Northeast Region of the United States in Providing Information to Mothers about Congenital Cytomegalovirus

Leadership Education in Neurodevelopmental and Related Disorders

May 3, 2019

Natalie Silvia & Michael Figueiredo

# Pre-Assessment

How *confident* are you in your knowledge of Congenital Cytomegalovirus (cCMV)?

Background

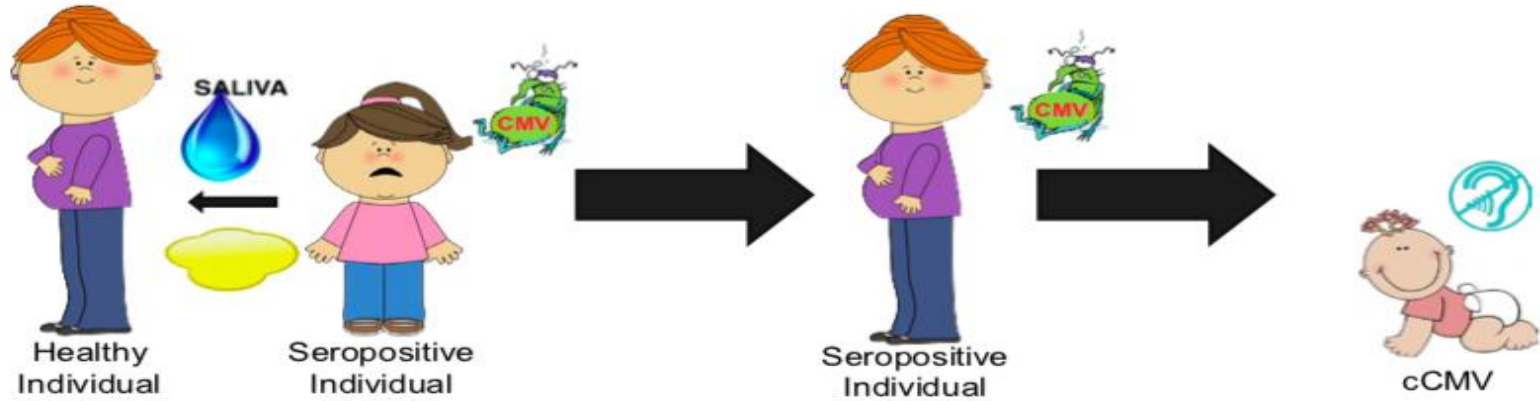
# What is CMV?

Cytomegalovirus (CMV) is a variant of the herpes virus which is transmitted through bodily fluids, such as urine or saliva. An individual with the virus can be symptomatic or asymptomatic, and can easily transfer it to another individual.

Once the virus has entered an individual's system, it stays there for life and can reactivate. Those with a healthy immune system can be unaffected from the virus.

The virus is of most concern for those with a weakened immune system and unborn babies. CMV infection can cause serious health problems.

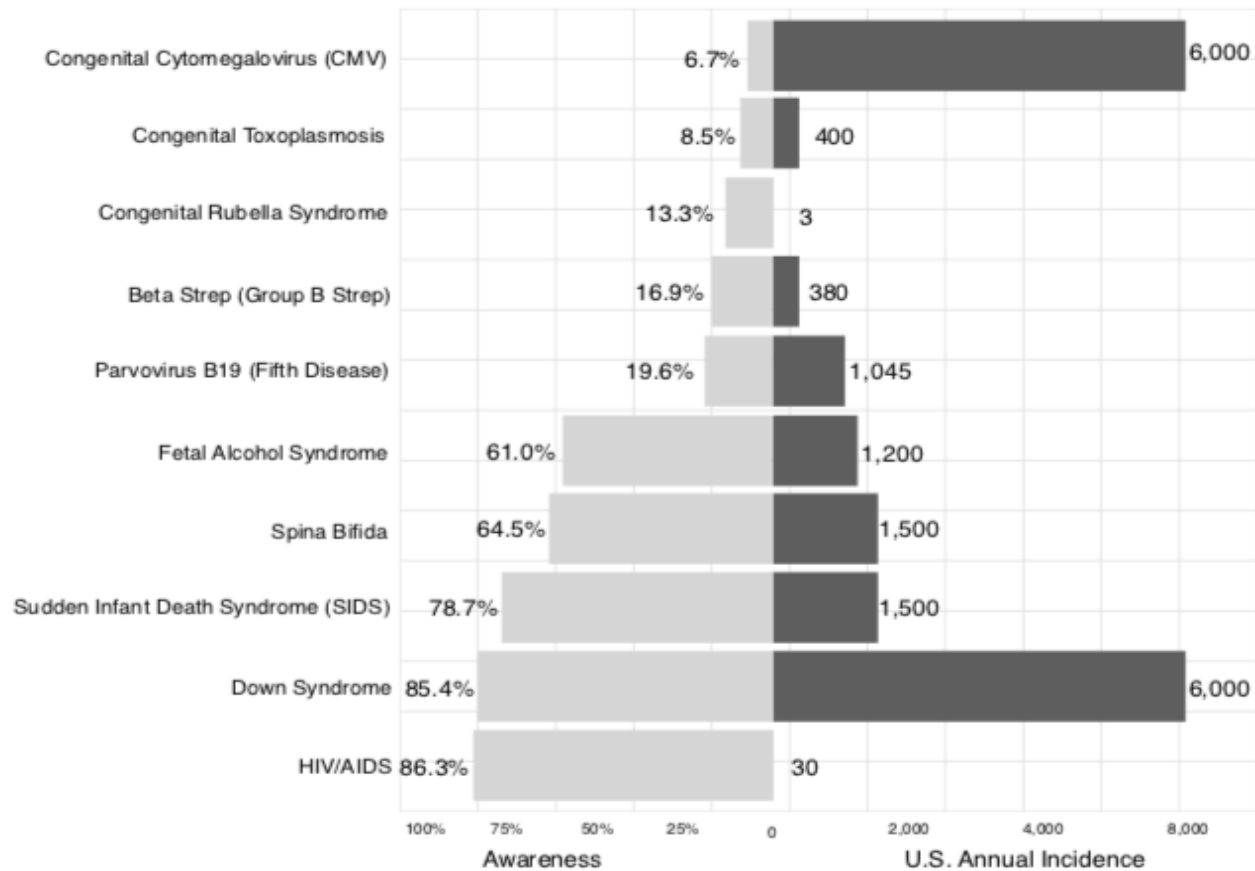
# What is cCMV?



- About 1 out of every 200 babies is born with cCMV
- 1 in 5 born with cCMV will have birth defects or long-term health outcomes

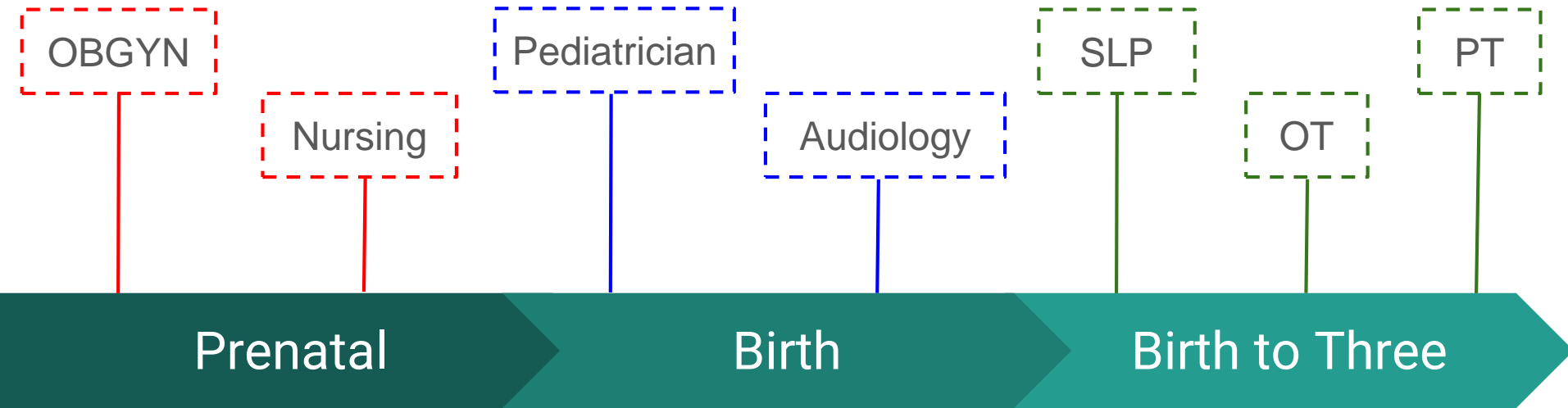


- Hearing loss
- Vision loss
- Intellectual Disability
- Microcephaly
- Lack of coordination
- Sleeping, Behavior, Sensory Issues
- Seizures
- Failure to Thrive
- Intracranial Calcification
- Cerebral Palsy
- Feeding Issues
- Death (rare cases)



**Figure 2. U.S. adult awareness of childhood conditions from the 2016 HealthStyles™ surveys with approximate annual U.S. incidence of disability due to each condition.**

# Where do professional's first interact with the family?



Purpose



# Purpose

1. Determine the training of professionals who interact with individuals at risk for contracting CMV and those diagnosed with CMV/cCMV
  
1. Assess the confidence of various health professionals involved in the continuum of care for a baby at risk for, or born with cCMV

# Methods

# Methods: Part 1

- **Collected emails from:**
  - Connecticut Department of Health
  - Professional Organizations
  - Birth to Three providers
- **Disciplines included:**
  - Physicians (Pediatricians and OBGYN)
  - Physician Assistant
  - Nurses
  - Nurse Practitioners
  - Speech Pathology
  - Occupational Therapy
  - Physical Therapy
  - Audiology
- 12 question survey
- Five-part likert scale for perceived confidence

# Part 1 Survey Questions

1. What is your field of practice?
2. How long have you been practicing?
3. Did you have any specific training about cytomegalovirus (CMV)?
4. How confident are you in your knowledge of cytomegalovirus (CMV)?
5. How confident do you feel answering women's questions about cytomegalovirus (CMV)?
6. How confident do you feel advising women how to reduce risk of acquiring cytomegalovirus (CMV) infection?
7. Did you have any specific training about congenital cytomegalovirus (cCMV)?
8. How confident are you in your knowledge of congenital cytomegalovirus (cCMV)?
9. How confident do you feel answering women's questions about congenital cytomegalovirus (cCMV)?
10. How confident are you counseling women about the risks to unborn children from congenital cytomegalovirus (cCMV)?
11. Are you aware of any guidelines surrounding congenital cytomegalovirus (cCMV)?
12. Do you have any comments or questions about the survey?

# Methods: Part 2

## Collected emails from:

- Accrediting Organizations
- Professional Organizations
- College / University Websites

## 6 Question Survey

- Option to upload class syllabus

## Programs Contacted

- A.S./ B.S./ M.A./ Doctorate Nursing
- Audiology
- Medicine
- Occupational Therapy
- Physician's Assistant
- Speech Therapy

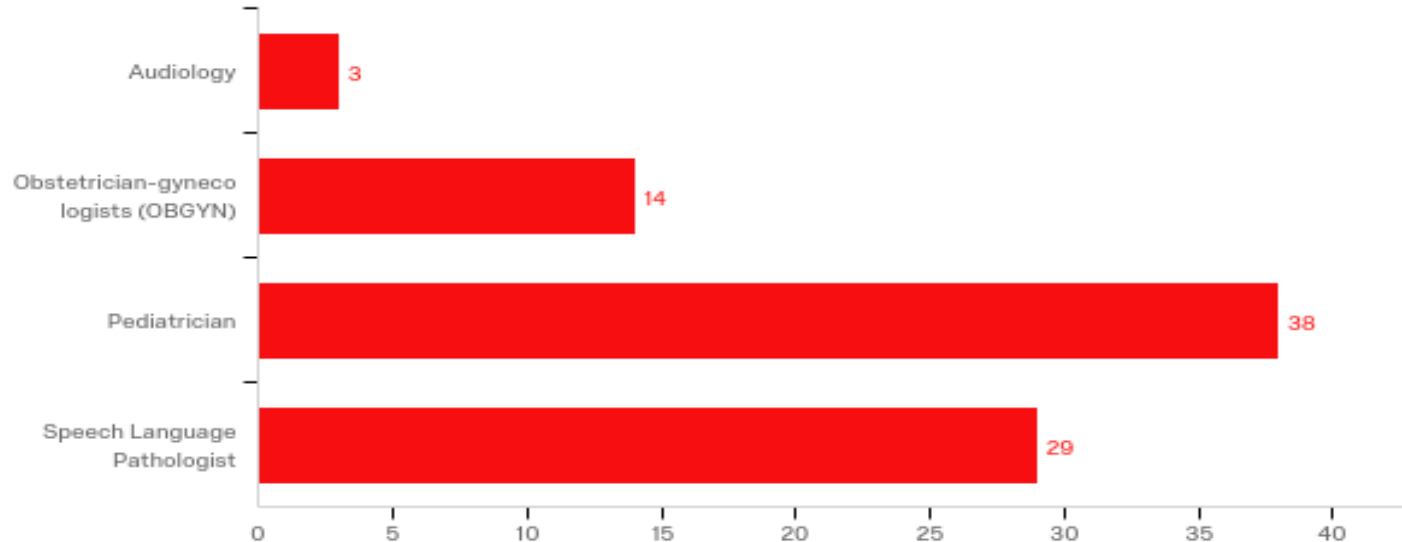
# Part 2 Survey Questions

1. What is your field(s) of practice?
2. Are you aware of cytomegalovirus (CMV)?
3. Are you aware of congenital cytomegalovirus (cCMV)?
4. Is CMV or cCMV covered in your educational program's curriculum?
5. Which class(es) cover CMV/cCMV?
6. Would you be willing to provide a copy of the syllabus where CMV/cCMV is covered? *Upload Link\**

# Results

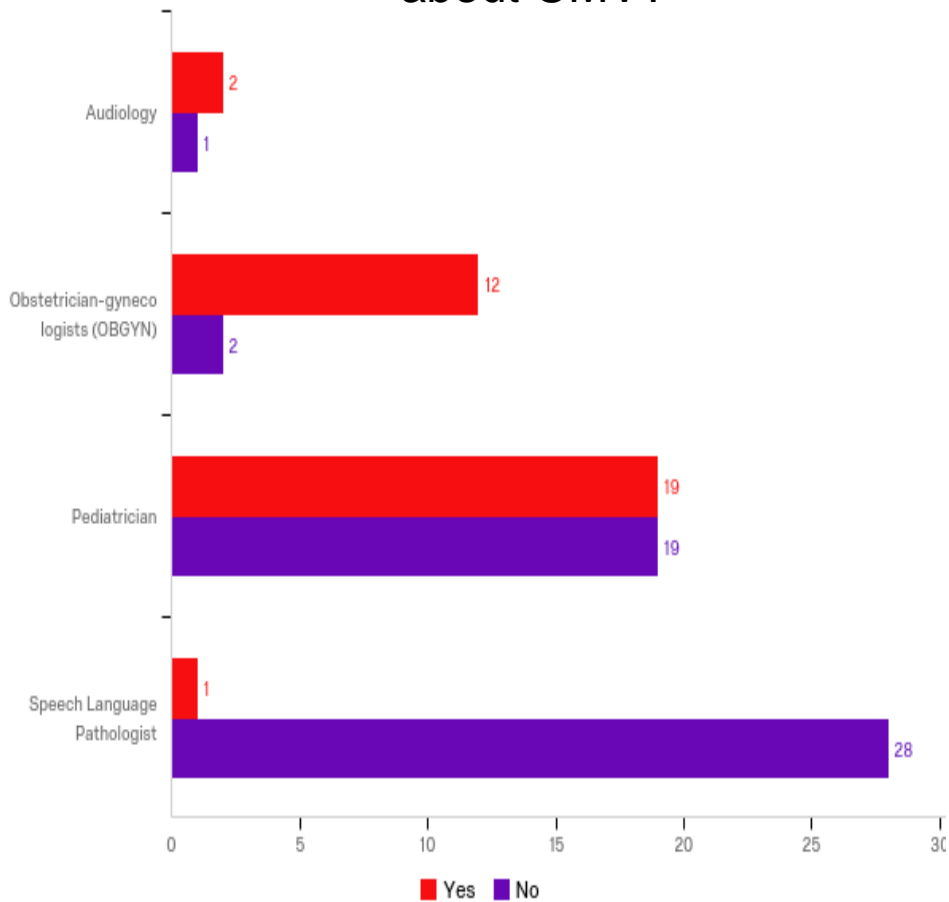
# Results from Part 1: Demographics

- 3,982 surveys sent to health professionals licensed in Connecticut
  - 2,487 - Pediatricians or OBGYN
  - 1,464 - Speech Pathologists
  - 31 - Audiologists
- 84 responses (2.13% response rate)
- Number of years practicing ranged from 10 months to 45 years (*\*no relationship with confidence*)

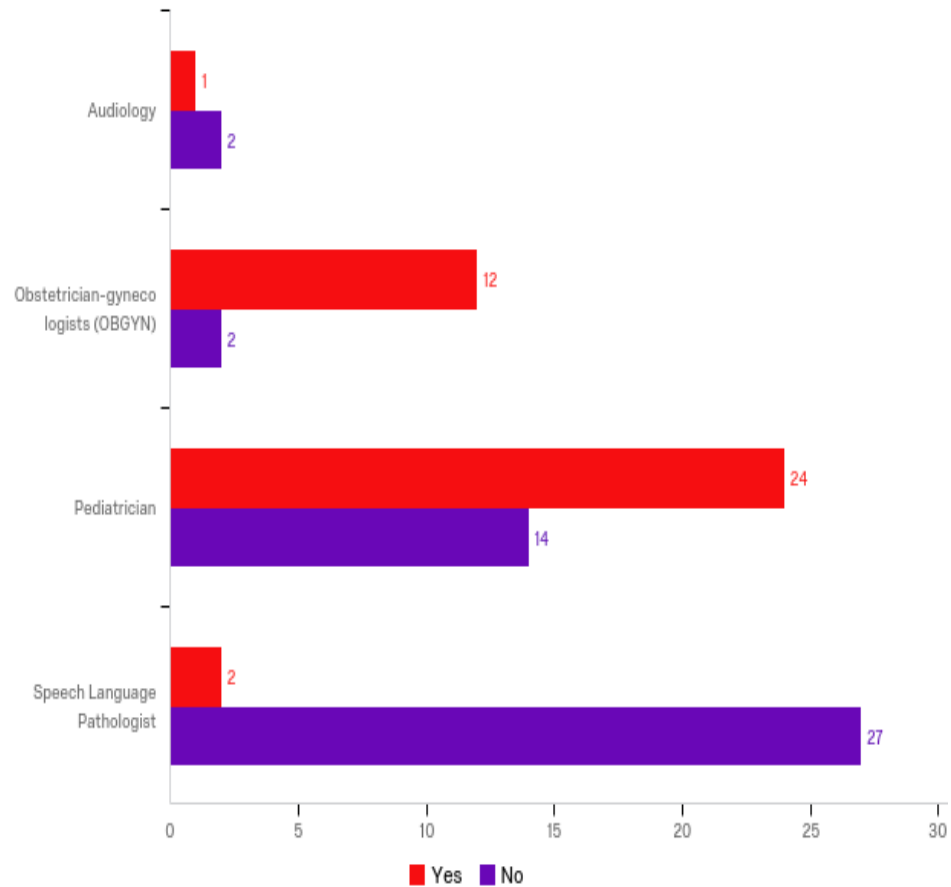




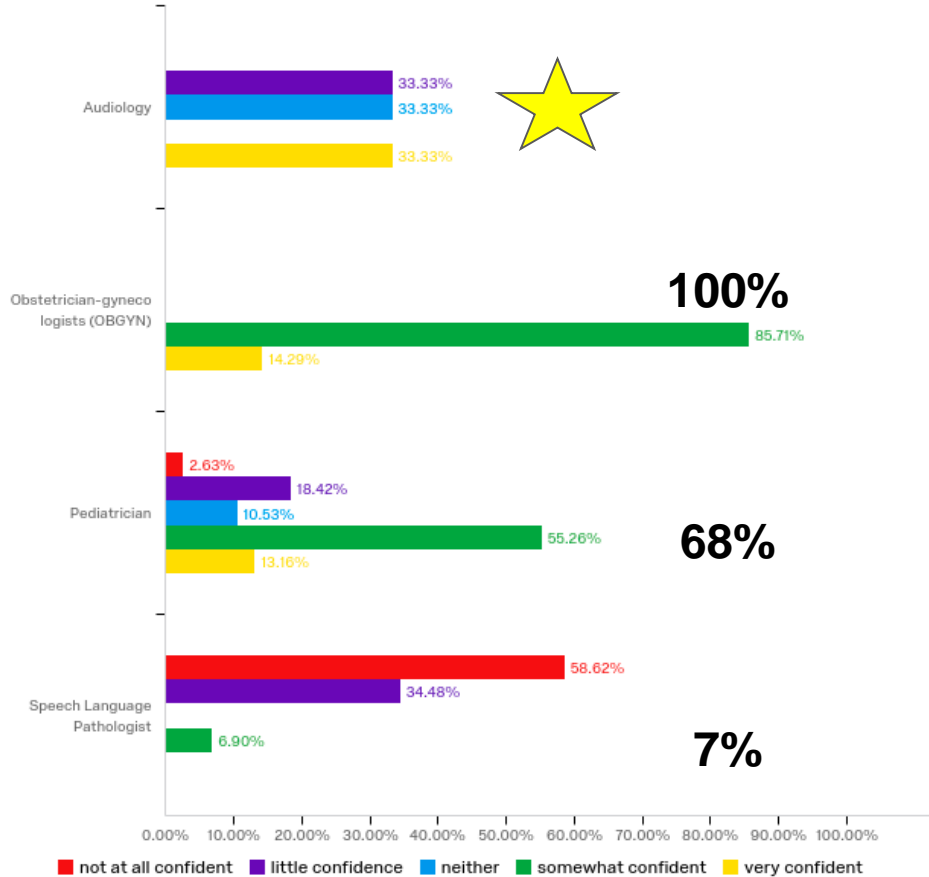
## Did you have specific training about CMV?



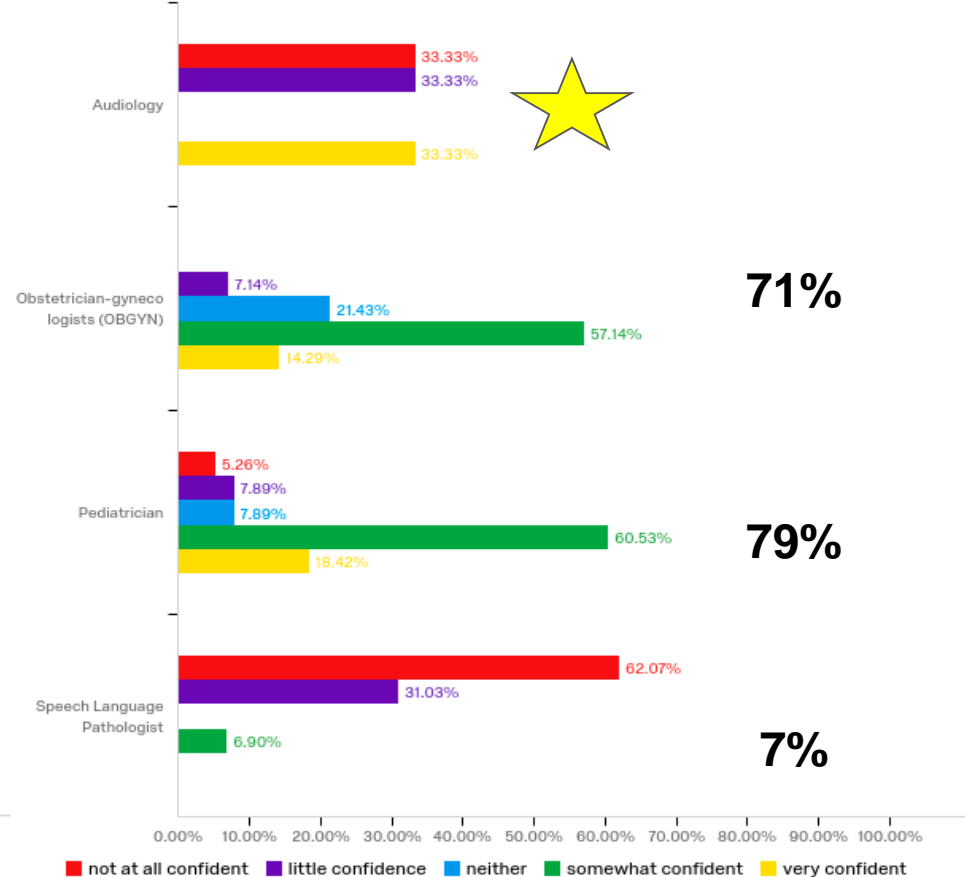
## Did you have specific training about cCMV?



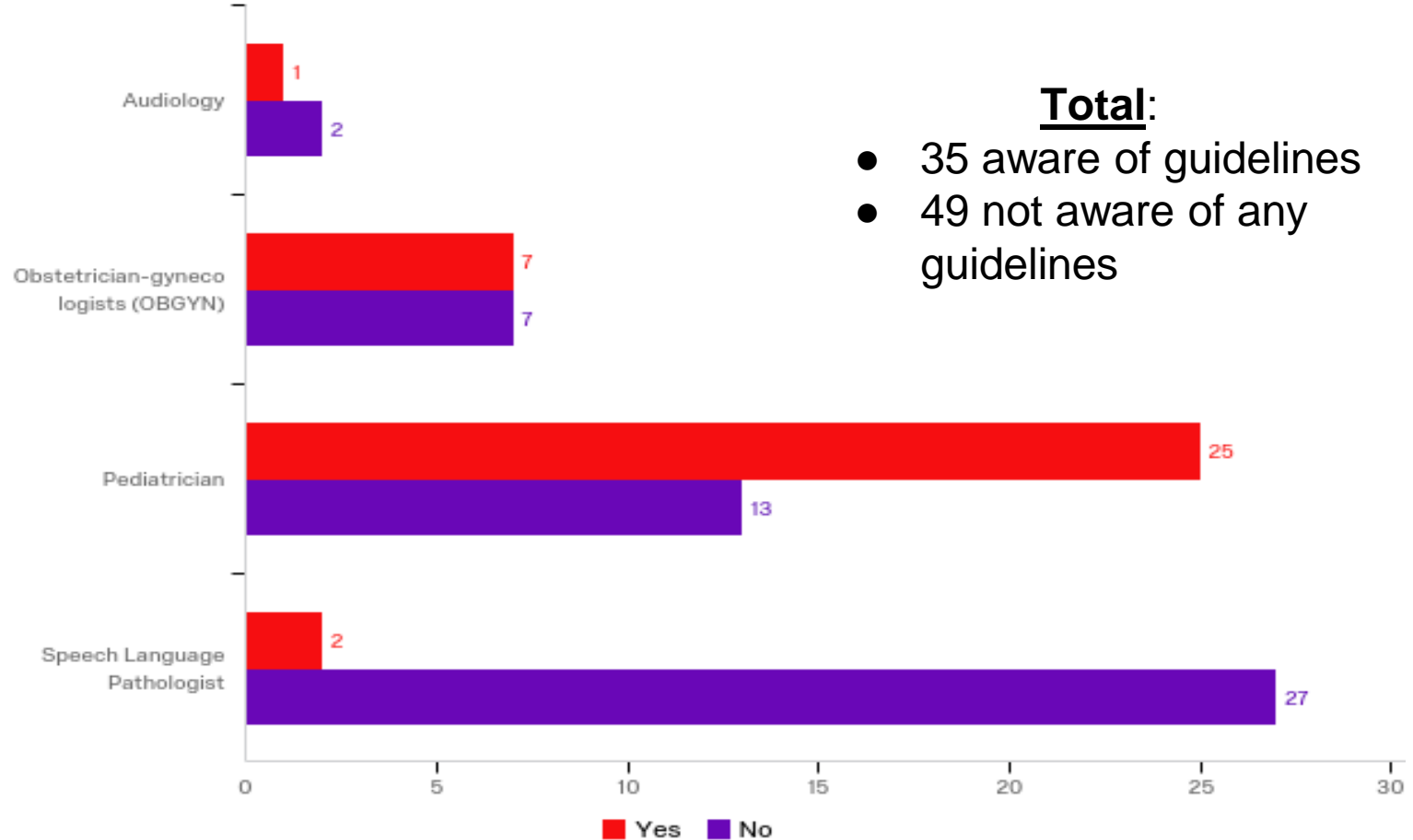
# How confident are you in your knowledge of CMV



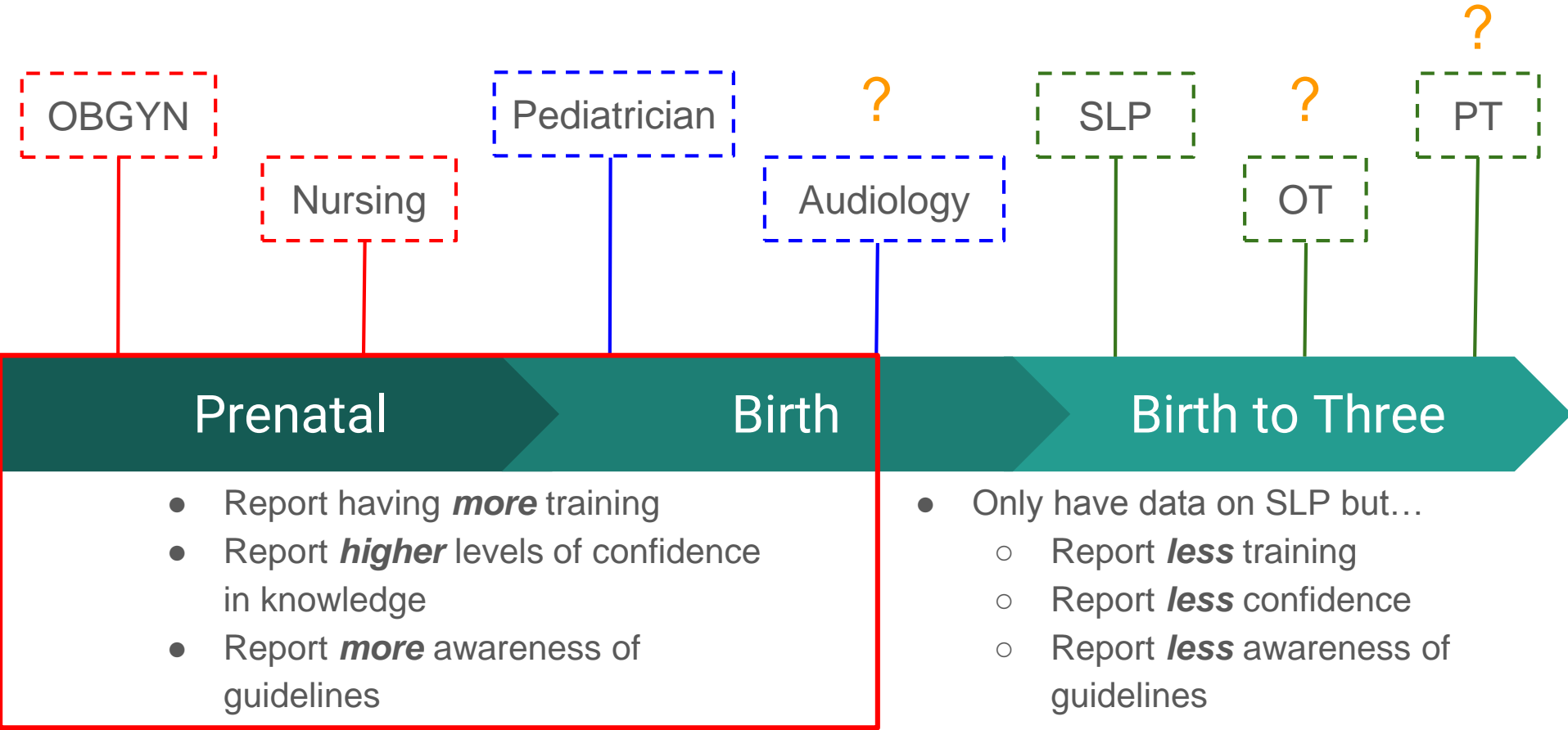
# How confident are you in your knowledge of cCMV



# Are you aware of any guidelines surrounding cCMV?



# Discussion: Part 1



# Part 2 Survey Questions

1. What is your field(s) of practice?
2. Are you aware of cytomegalovirus (CMV)?
3. Are you aware of congenital cytomegalovirus (cCMV)?
4. Is CMV or cCMV covered in your educational program's curriculum?
5. Which class(es) cover CMV/cCMV?
6. Would you be willing to provide a copy of the syllabus where CMV/cCMV is covered? *Upload Link\**

# Results Part 2

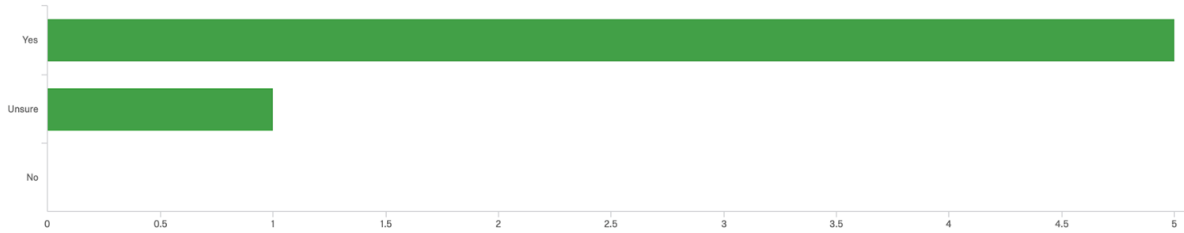
Survey was distributed to 41 educational programs within the State of Connecticut

- Distribution list were Department Heads or Program Coordinators
- Asked to distribute amongst program educators
- 6 responses received
  - APRN, Certified Nursing Midwife, Nursing, Nursing Education
  - Response rate: 8.7% (46 emails were sent)

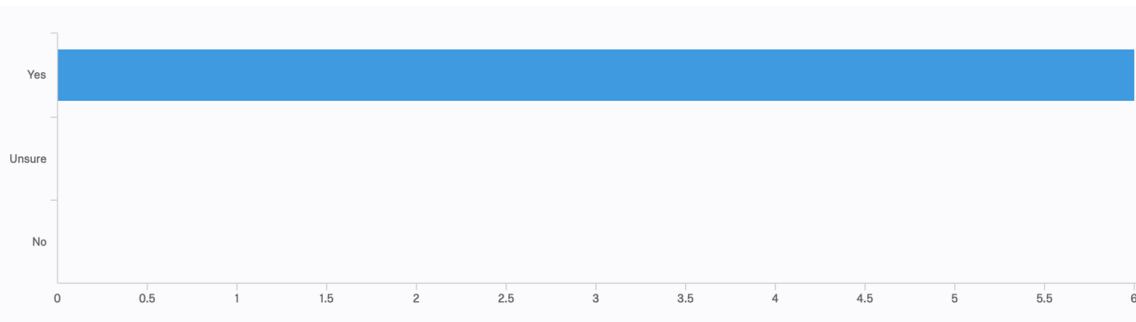
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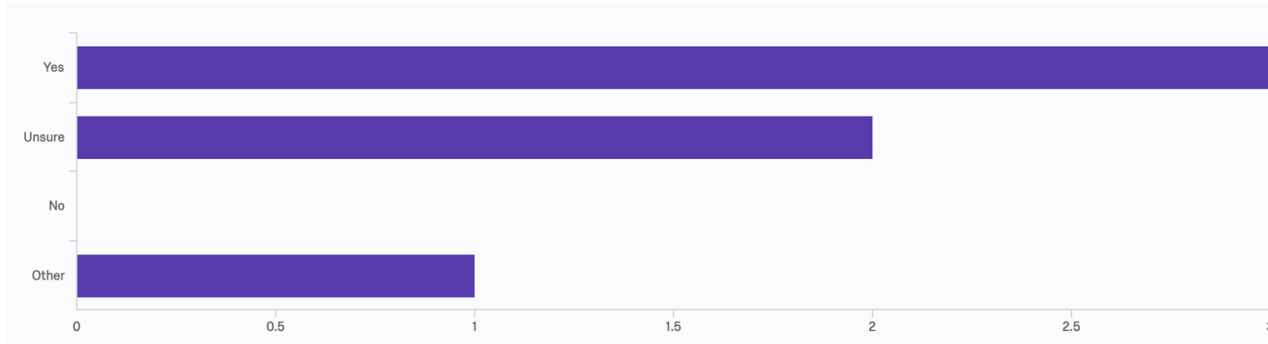
# Are you aware of cytomegalovirus (CMV)?



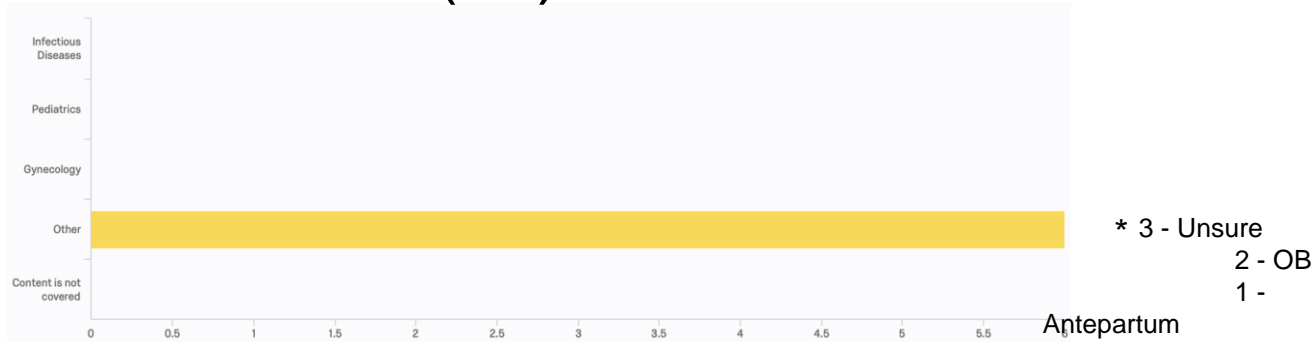
# Are you aware of congenital cytomegalovirus (cCMV)?



# Is CMV or cCMV covered in your educational program's curriculum?

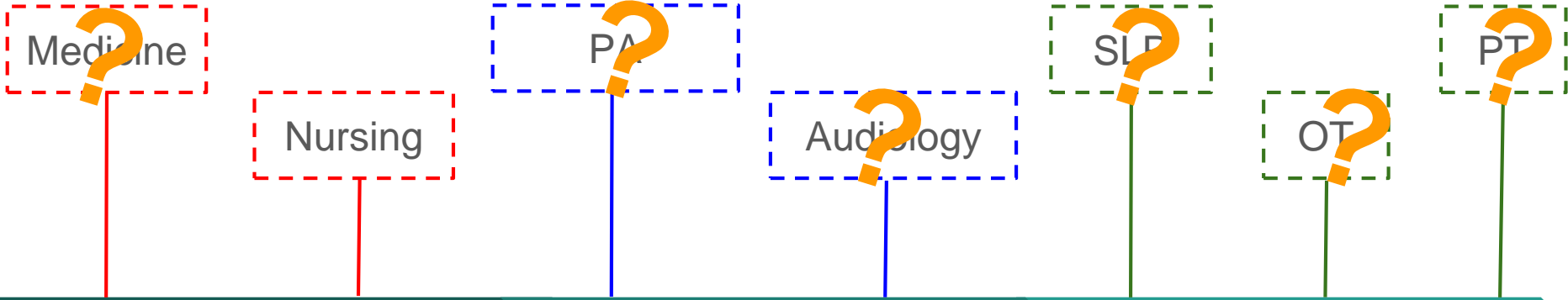


# Which class(es) cover CMV/cCMV?





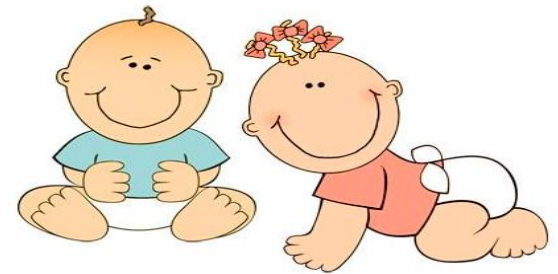
# Discussion: Part 2



Prenatal

Birth

Birth to Three



# Next Steps

- Make amendment to Survey 2 and re-send
  - Determine amount of time that is spent on the topic
- Continue to collect more survey results
- Expand our outreach outside of Connecticut
  - E.g. Northeast and/or entire United States
- Conduct further analysis on the results with a goal of encouraging further training on the topic

# References

Cytomegalovirus (CMV) and Congenital CMV Infection. (2018, August 02). Retrieved from <https://www.cdc.gov/cm/overview.html>

Doutre, S. M. et al. (2016). Losing Ground: Awareness of Cytomegalovirus in the United States. *The Journal of Early Hearing Detection and Intervention*, 1(2): 39-48.

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Muldoon, K. M., Armstrong-Heimsoth, A., & Thomas, J. (2017). Knowledge of congenital cytomegalovirus (cCMV) among physical and occupational therapists in the United States. *PloS one*, 12(10), e0185635. doi:10.1371/journal.pone.0185635

<https://uconnuceedd.org/wp-content/uploads/sites/1340/2017/08/Olivia-DeWald-Casey-Turovac.pdf>

Questions?