

Assessing Informational Resources on Congenital Toxoplasmosis – Are They Accessible?

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LEND Independent Research Project

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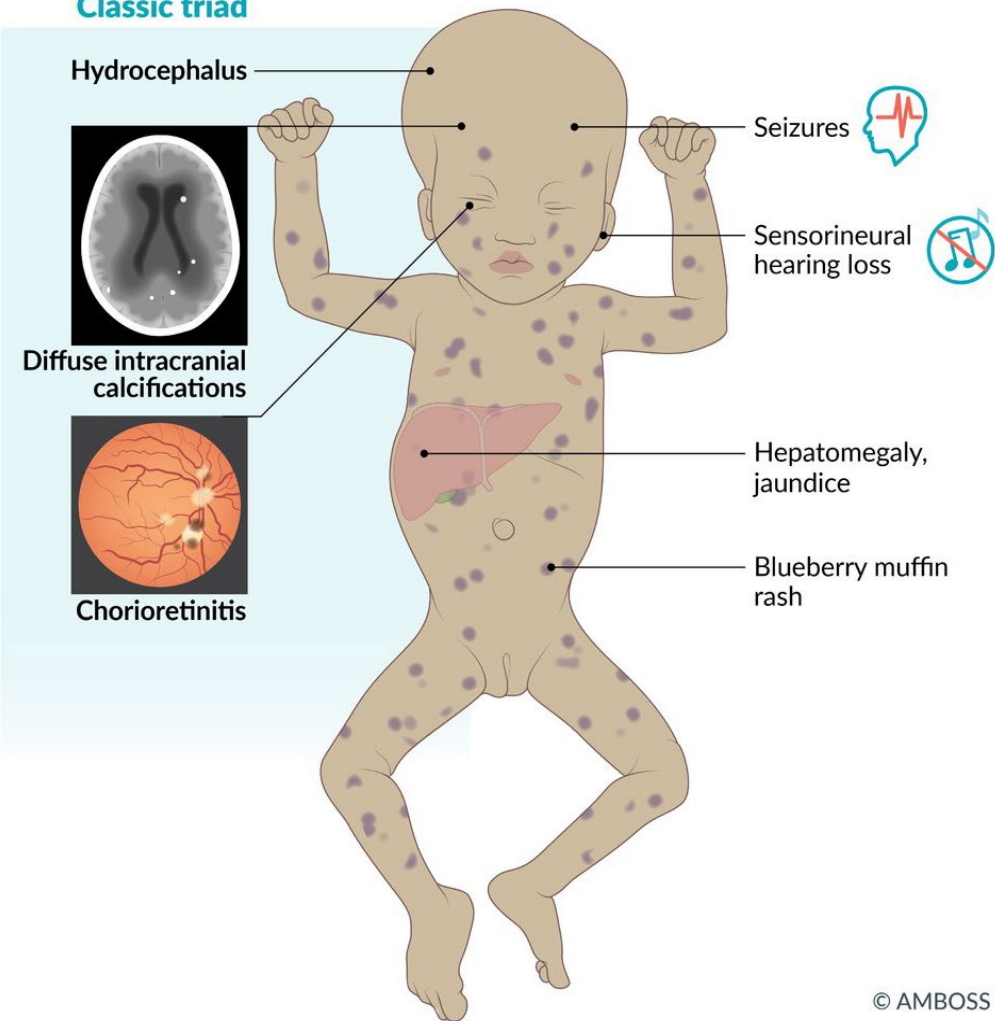
Background

- Toxoplasmosis = infection caused by *Toxoplasma gondii* (*T. gondii*)
- Can infect a wide range of hosts, including humans
- In expectant mothers, effects can be devastating → **congenital toxoplasmosis**

Background (cont.)

- In developing fetus, congenital toxoplasmosis can cause many severe symptoms
- Classic triad
 - **Hydrocephalus** (water on the brain)
 - **Diffuse intracranial calcifications** (calcium deposits in the brain)
 - **Chorioretinitis** (inflammation of the retina and choroid of the eye)

Classic triad



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Image Modified From: AMBOSS. (n.d.). *Congenital TORCH infections*. AMBOSS. Retrieved April 30, 2025, from <https://www.amboss.com/us/knowledge/congenital-torch-infections>

Background (cont.)

- Important: prenatal screening, early diagnosis, and timely therapeutic intervention
- Also important: educating expectant individuals about the prevention and potential outcomes of congenital toxoplasmosis

Research Question

“Do existing resources on toxoplasmosis prevention and outcomes comply with federal accessibility guidelines?”

Methods

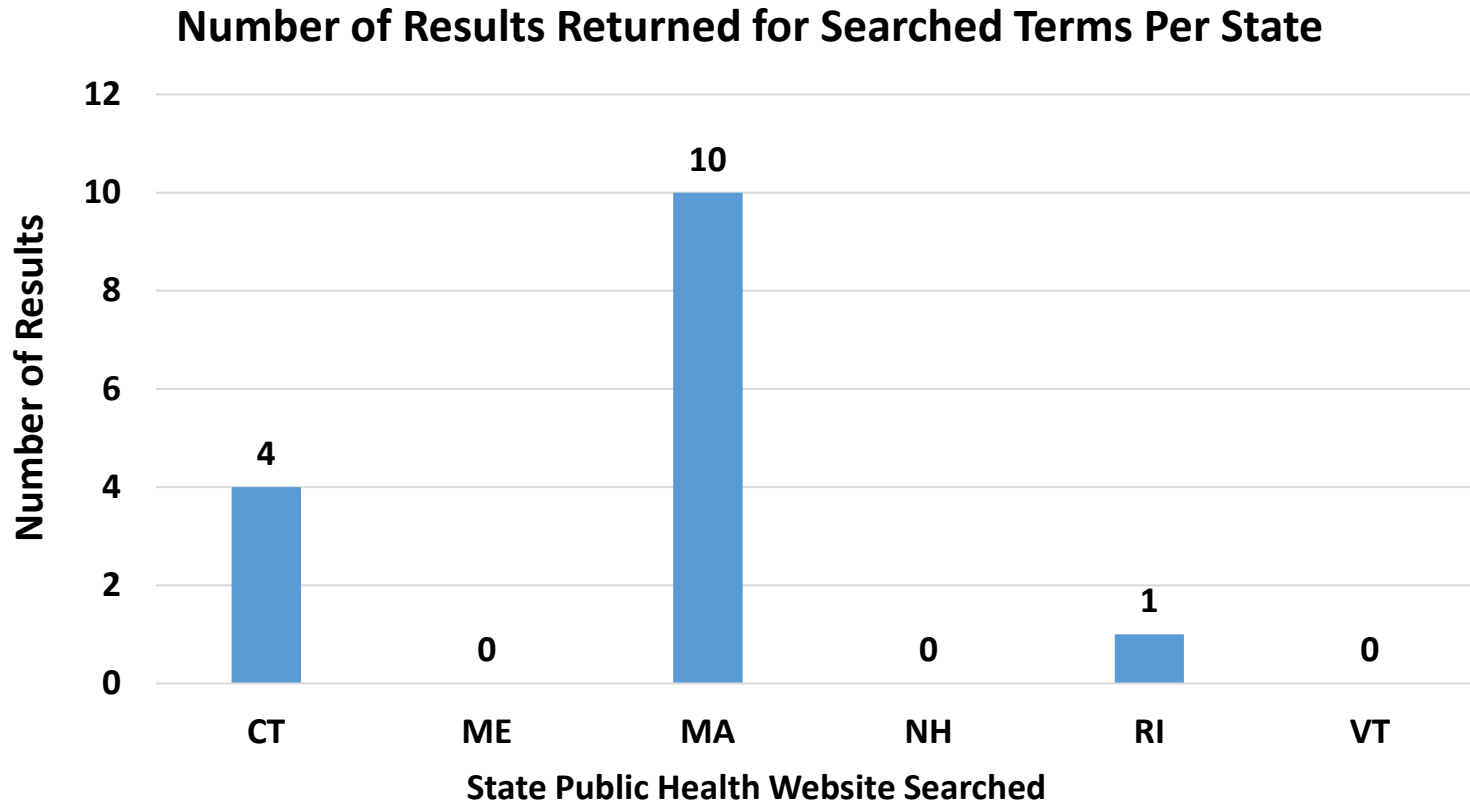
1. Navigated to public health websites of 6 New England states (CT, ME, MA, NH, RI, VT)
2. Searched “toxoplasmosis”; if no results, searched “*T. gondii*”
3. Evaluated returned results (webpages) for content

Methods (cont.)

4. To be further evaluated, webpage had to contain:
 - a) information on the prevention of toxoplasmosis in pregnant individuals OR
 - b) information on the potential outcomes of toxoplasmosis if contracted during pregnancy OR
 - c) information on both prevention and possible outcomes of toxoplasmosis in pregnancy

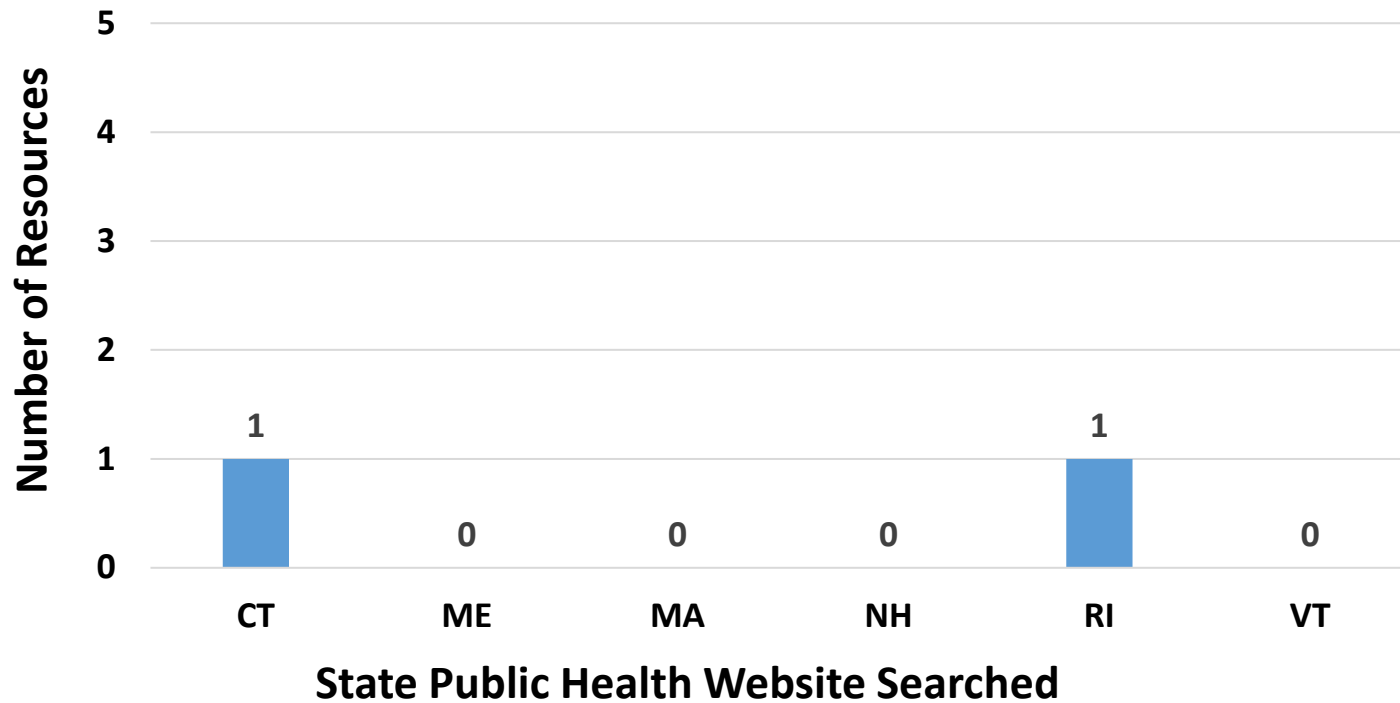
5. Eligible resources run through AccessiBe and Hemingway apps

Results



Results (cont.)

Number of Eligible Resources Per State



Results (cont.)

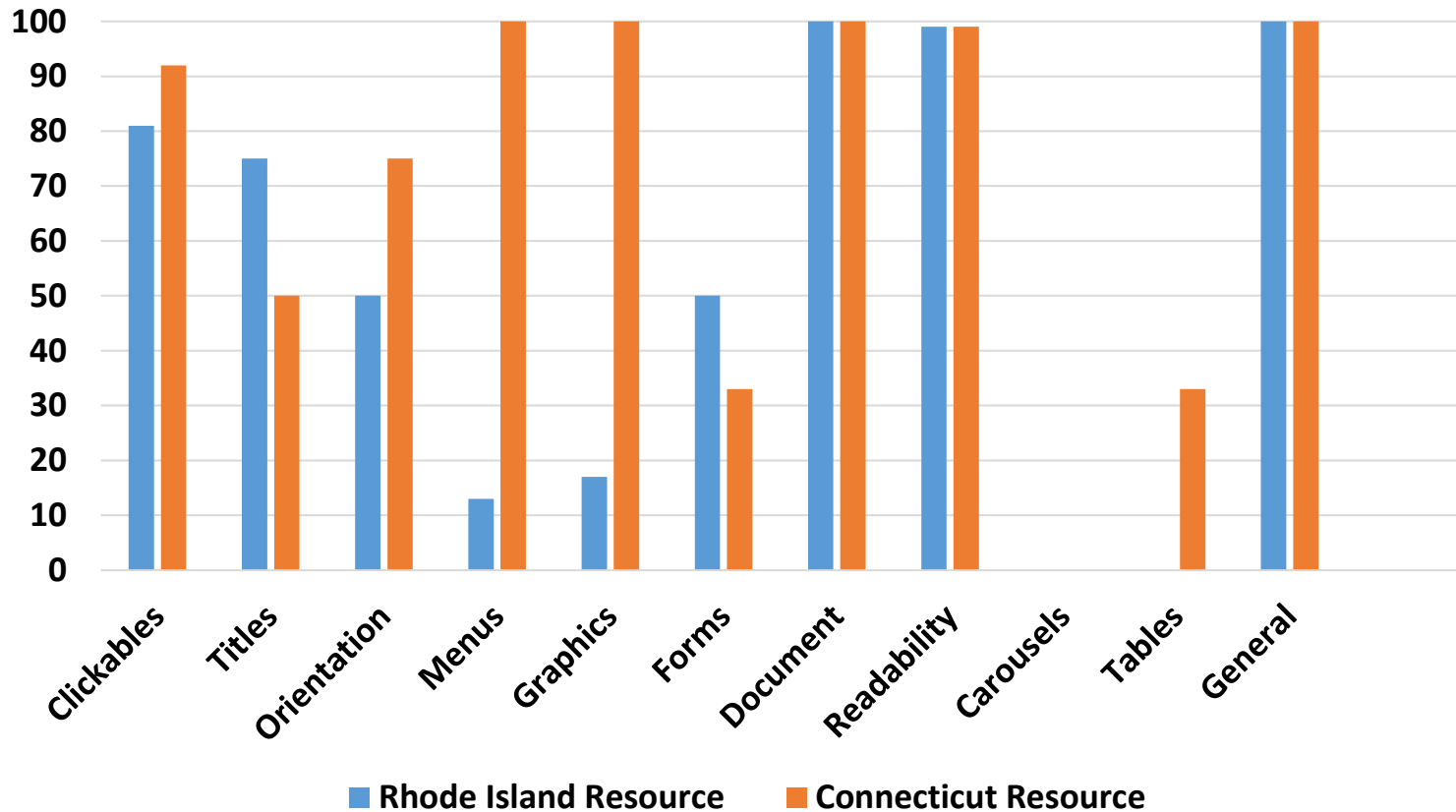
- Connecticut Resource (*Early Hearing Detection and Intervention Program*)
 - Featured information on outcomes
 - Featured no information on prevention
 - Non-compliant overall
 - Eleventh-grade reading level

Results (cont.)

- Rhode Island resource (*Health Information for Women Planning a Pregnancy*)
 - Featured information on prevention
 - Featured no information on outcomes
 - Semi-compliant overall
 - Eighth-grade reading level

Results (cont.)

AccessiBe Scores Across Accessibility Categories



Discussion

- Health departments in NE largely lack accessible online resources addressing congenital toxoplasmosis
- Substantial gap in regional public health communication
- Gap is particularly concerning in the context of recent policy developments that may restrict the scope and funding of federal agencies like the Centers for Disease Control and the National Institutes of Health



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Recommendations and Reports

March 31, 2000 / 49(RR02);57-75

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Discussion (cont.)

- Developing dedicated, **accessible**, and comprehensive resources on congenital toxoplasmosis is a necessary step toward protecting maternal and fetal health at the state level
- AI = helpful preliminary tool, but final call on accessibility should be made by individuals with disabilities

Limitations

- Small sample size
 - Results not generalizable
- AccessiBe scoring is challenging to interpret
- Reproducibility may be limited

Thank you for listening! 😄

Bodaghi, B., Touitou, V., Fardeau, C., Paris, L., & LeHoang, P. (2012). Toxoplasmosis: new challenges for an old disease. *Eye (London, England)*, 26(2), 241–244.
<https://doi.org/10.1038/eye.2011.331>

Centers for Disease Control (CDC). (2024, June 7). *Toxoplasmosis*. *DPDx*.
<https://www.cdc.gov/dpdx/toxoplasmosis/index.html#:~:text=The%20only%20known%20definitive%20hosts,large%20numbers%20may%20be%20shed.>

Chaudhry, S. A., Gad, N., & Koren, G. (2014). Toxoplasmosis and pregnancy. *Canadian family physician Medecin de famille canadien*, 60(4), 334–336.

Connecticut Department of Public Health. (n.d.). *Genetics and hearing loss*. Retrieved April 01, 2025, from <https://portal.ct.gov/dph/family-health/ehdi/genetics-and-hearing-loss>

Eltorai AE, Ghanian S, Adams CA Jr, Born CT, Daniels AH. Readability of patient education materials on the american association for surgery of trauma website. *Arch Trauma Res*. 2014 Apr 30;3(2):e18161. doi: 10.5812/atr.18161. PMID: 25147778; PMCID: PMC4139691.

Hemingway Editor. (2025). <https://hemingwayapp.com/>

Kozlov, M., & Ryan, C. (2025, April 10). *How Trump 2.0 is slashing NIH-backed research — in charts*. *Nature*. <https://www.nature.com/articles/d41586-025-01099-8>

Lopez, A., Dietz, V. J., Wilson, M., Navin, T. R., & Jones, J. L. (2000). *Preventing congenital toxoplasmosis*. Morbidity and Mortality Weekly Report, 49(RR-02), 59–68. Centers for Disease Control and Prevention. Retrieved April 29, 2025, from <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr4902a5.htm>

Madireddy S, Mangat R. Toxoplasmosis. [Updated 2024 Oct 14]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2025 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK563286/>

MedlinePlus. (n.d.). *Toxoplasmosis*. U.S. National Library of Medicine. Retrieved April 30, 2025, from <https://medlineplus.gov/ency/article/001360.htm>

Michaud, J., Kates, J., Oum, S., & Rouw, A. (2025, April 7). *CDC's funding for state and local public health: How much and where does it go?* KFF. <https://www.kff.org/other/issue-brief/cdcs-funding-for-state-and-local-public-health-how-much-and-where-does-it-go/>

Rhode Island Department of Health. (n.d.). *Health information for women planning a pregnancy*. Retrieved April 23, 2025, from <https://health.ri.gov/pregnancy/information/health-information-women-planning-pregnancy>

Toxoplasmosis in pregnancy. (2024, October 5). Tommy's. <https://www.tommys.org/pregnancy-information/pregnancy-complications/infections/toxoplasmosis-pregnancy#:~:text=If%20you%20get%20it%20while,health%20problems%20for%20your%20baby.>