

MEMORANDUM

To: Advisory Panel to Better Understand and Make Recommendations Regarding the Implications of Genome-editing Technology for the Citizens of the State

From: Office of Policy and Legal Analysis Staff

Date: September 21, 2022

Re: **Genetic Counselor Workforce Information**

At the second Advisory Panel meeting on September 7, 2022, members inquired whether a standard has been established for the recommended number of genetic counselors for a given population and, if so, whether this standard has been met in the State of Maine.

Workforce Research

The U.S. Government Accountability Office reported in 2020 that, “guidelines for determining the appropriate number of genetic counselors per population” have not yet been established.”¹

In 2015, the Genetic Counselor Workforce Working Group—formed by the American Board of Genetic Counseling, the Accreditation Council for Genetic Counseling, the Association of Genetic Counseling Program Directors, the American Society of Human Genetics and the National Society of Genetic Counselors—commissioned a formal workforce study to project the supply of and demand for certified genetic counselors in the United States through 2026. The working group’s 2017 report² noted the “absence of U.S. data or guidelines indicating the appropriate ratio of [clinical genetic counselors] per population and the many variables, known and unknown, that affect demand” including: “awareness, referral patterns, reimbursement [and changes to payer coverage], geographic location, and the potential availability of genetic tests in the future that may increase demand significantly.” It concluded that the then-existing shortage of genetic counselors engaged in direct patient care would be satisfied between 2024 and 2029 depending on which of two potential demand ratios was employed:

- The one full-time clinical genetic counselor per 100,000 in population recommendation from the Association of Genetic Nurses and Counsellors in the United Kingdom and Ireland; or
- The one full-time clinical genetic counselor per 75,000 in population rate “attributed to a large U.S. health system.”

The workforce study recommended “conducting additional research to assess whether the assumptions of one FTE [clinical genetic counselor] per 100,000 or one per 75,000 population are indeed appropriate to meet current or future demand in the clinical setting in the U.S.”

Genetic Counselor Workforce in Maine

It is difficult to determine the number of genetic counselors in the State. The Maine Department of Labor’s Center for Workforce Research and Information estimates, based on multiple sampling

¹ U.S.GAO, *Genetic Services: Information on Genetic Counselor and Medical Geneticist Workforces*, GAO-20-593 at 14 (July 2020), at <https://www.gao.gov/assets/gao-20-593.pdf>.

² See Jennifer M. Hoskovec et al., *Projecting the Supply and Demand for Certified Genetic Counselors: a Workforce Study*, 27 J. of Genetic Counseling 16 (2018), available at <https://pubmed.ncbi.nlm.nih.gov/29052810/>.

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surveys of employers in the State, that there were approximately 10 genetic counselors employed in Maine in 2021:³



The U.S. Census Bureau estimates that, as of July 1, 2021, the State of Maine had a population of 1,372,247 individuals.⁴

Based on the Center for Workforce Research and Information’s 2021 estimated number of genetic counselors and the U.S. Census Bureau’s July 1, 2021 population estimate, Maine had approximately 1 genetic counselor per 137,000 people in 2021.

³ See Maine Department of Labor (MDOL), Center for Workforce Research and Information (CWRI), *Occupational Employment and Wage Estimates, 2021*, at <https://www.maine.gov/labor/cwri/oes1.html>. The Occupational Employment Statistics (OES) Program “is a federal-state cooperative program between the United States Bureau of Labor Statistics (USBLS) and state agencies. Surveyed employers are asked about the number of wage and salary workers in detailed occupations and about the wage distribution for those workers. OES survey samples are drawn from the universe of non-farm employers covered by the Unemployment Insurance (UI) system.” See MDOL, CWRI, *Occupational Employment and Wages*, <https://www.maine.gov/labor/cwri/oes.html>. According to email correspondence with the Center’s Director, Mark McNerney, the Center’s 2021 Occupational Employment and Wage Estimates are “based on survey responses collected over multiple survey panels.” For each panel, the Center’s staff “classifies jobs into occupations [including the “genetic counselor” occupation] based primarily on the job title and any description of that job provided by the employer.”

⁴ See U.S. Census Bureau, QuickFacts: Maine, at <https://www.census.gov/quickfacts/fact/table/ME/POP010220>.