

# The Medical Genetics and Genomics Workforce

*- A focus on clinical geneticists*

Miriam G. Blitzer, PhD, FACMG  
Chief Executive Officer

American Board of Medical Genetics and Genomics

May 2021

# ABMGG Mission

“The mission of the ABMGG is to serve the public and medical profession by establishing professional certification standards and promoting lifelong learning as well as excellence in medical genetics and genomics.”

# American Board of Medical Genetics and Genomics

- ▶ **Independent medical board** established in **1980**
  - Evolved out of a recognized need and to improve the level and standards of clinical care in the area of medical genetics in order to:
  - **certify** medical geneticists (clinical geneticists, clinical laboratory geneticists, genetic counselors) with specialized education and clinical skills
  - **accredit** medical genetics training programs

# American Board of Medical Genetics and Genomics

- ▶ 1991 - accepted by the **American Board of Medical Specialties** as the newest (24<sup>th</sup>) specialty board
- ▶ **Accreditation** of residency programs and now laboratory training programs by the **Accreditation Council for Graduate Medical Education (ACGME)**

# The Medical Genetics and Genomics Certifying/Professional Organizations

## ABMGG

- ▶ **Sets standards** to be admitted to initial certification exam
- ▶ **Develops/administers** in-training exams and certifying exams
- ▶ **Set standards for/administers continuing certification program**

## American College of Medical Genetics and Genomics (ACMG)

- Membership-based professional society
- Providers of educational and learning activities
- Advocates for their members and the clinical profession

# American Board of Medical Genetics and Genomics

- ▶ Certifies individuals in the specialties of
  - **Clinical Genetics and Genomics**
    - Medical Biochemical Genetics (subspecialty)
  - Clinical Biochemical Genetics (lab)
  - Laboratory Genetics and Genomics (lab) (2019 - first exam)
  - *(Clinical Cytogenetics and Genomics)*
  - *(Clinical Molecular Genetics and Genomics)*

# Residency Training in Medical Genetics and Genomics

- ▶ Categorical residency:
  - 2-year accredited residency
    - Requires at least 1 year of prior residency training in a specialty that includes 12 months of direct-patient care
- ▶ Combined residency:
  - 4-year training, completing requirements for MGG residency and other specialty:
    - Pediatrics
    - Internal Medicine
    - Maternal Fetal Medicine
    - Reproductive Endocrinology and Infertility

# Residency Programs

(as of April 2021)

**ACGME-Accredited Residency Programs** 46

## **Combined Clinical Residency Programs**

(approved by specialty boards)

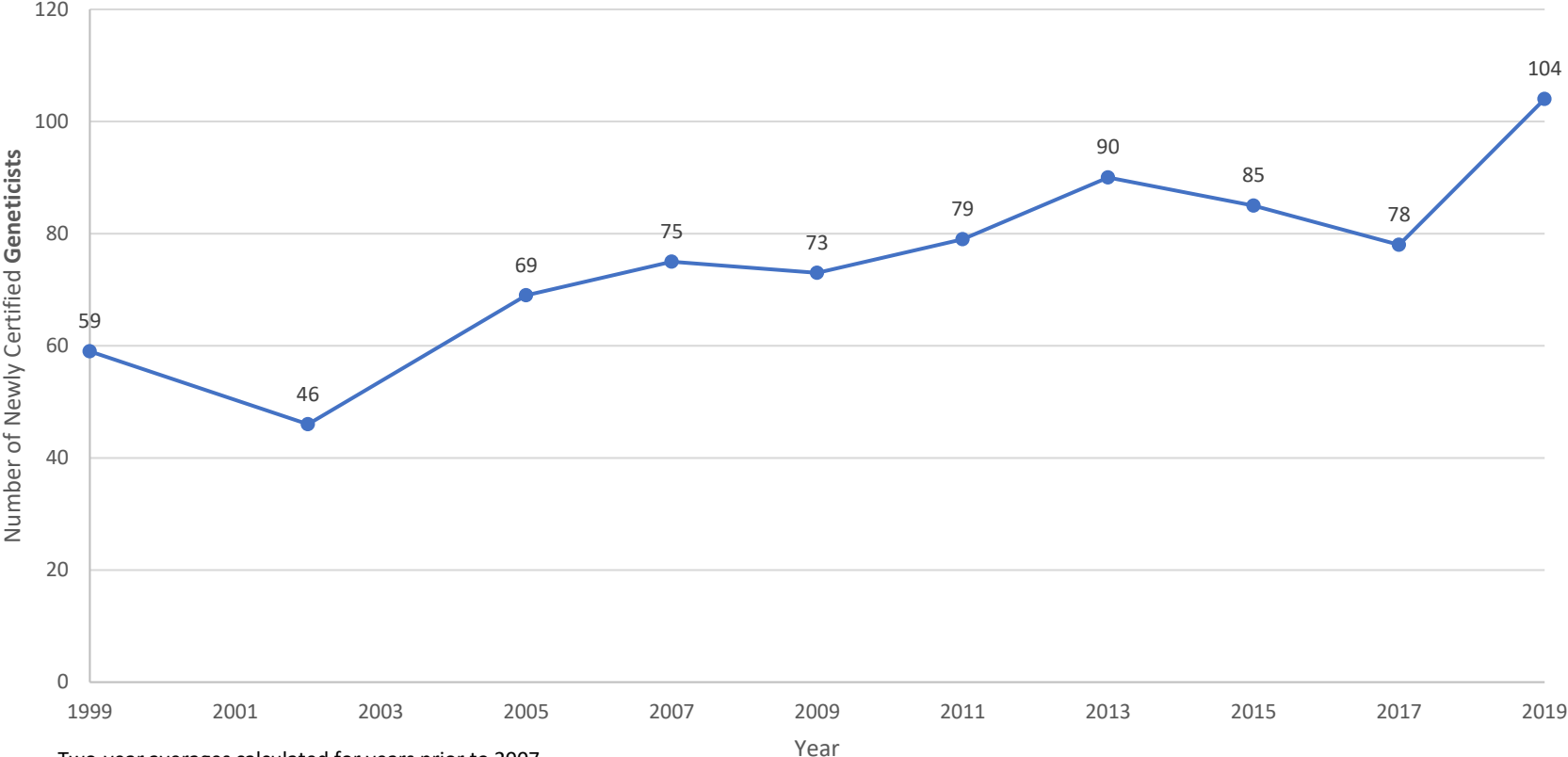
MGG/Pediatrics	23
MGG/Internal Medicine	6
MGG/Maternal Fetal Medicine	9
MGG/Repro Endocrinology & Infertility	3



# ABMGG Data for MGG Residents

YEAR	MGG	MGG/ Ped	MGG/ MFM	MGG/ REI	MGG /IM	TOTAL
14-15	80	35	12	1	1	<b>129</b>
15-16	72	43	11	2	5	<b>133</b>
16-17	72	55	9	2	6	<b>144</b>
17-18	75	58	5	1	7	<b>146</b>
18-19	59	65	10	1	6	<b>141</b>
19-20	61	65	8	3	6	<b>143</b>
20-21	70	70	10	3	8	<b>161</b>

# ABMGG Newly Certified Clinical Geneticists

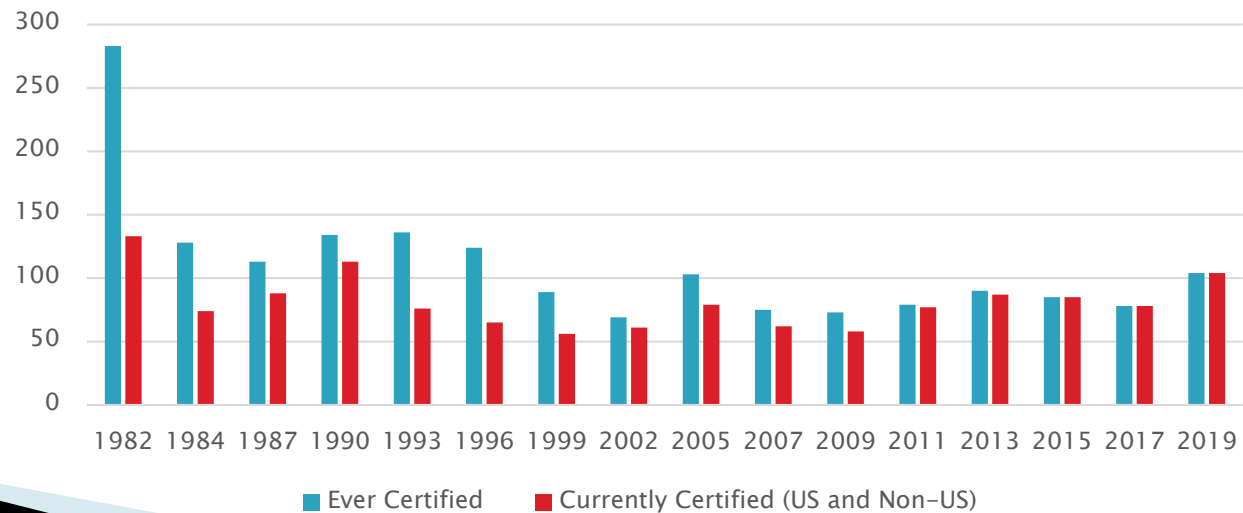


## Currently Certified Clinical Genetics in the US

\*Excludes retired and deceased

Description	n
Total Currently Certified Clinical Geneticists in US	1240
# of Time limited certificates	852
# of Non-time limited certificates	388
Total Clinically Active Certified Clinical Geneticists in US	1195
# of Clinically active, time limited certificates	820
# of Clinically active, non-time limited certificates (self-reported)	375

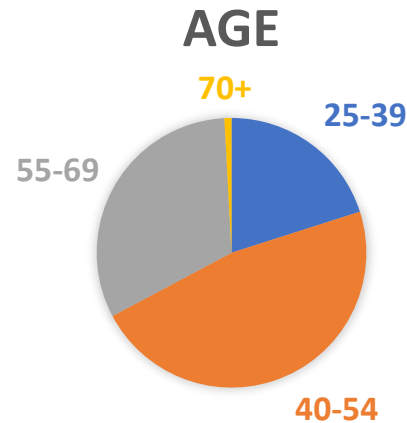
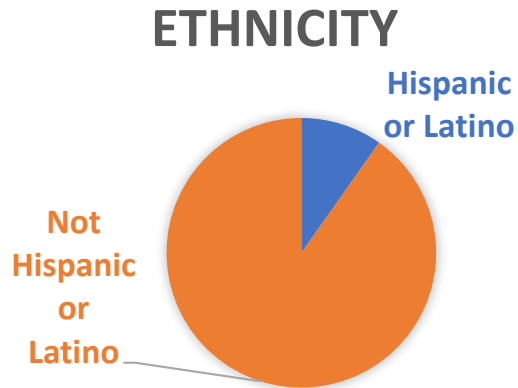
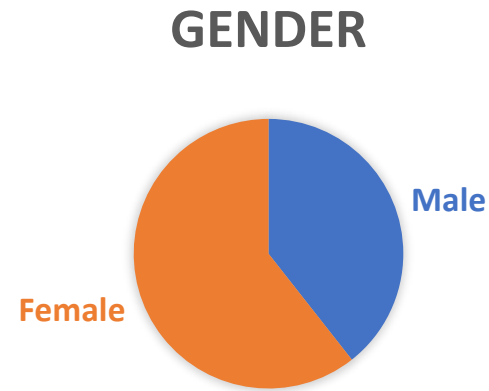
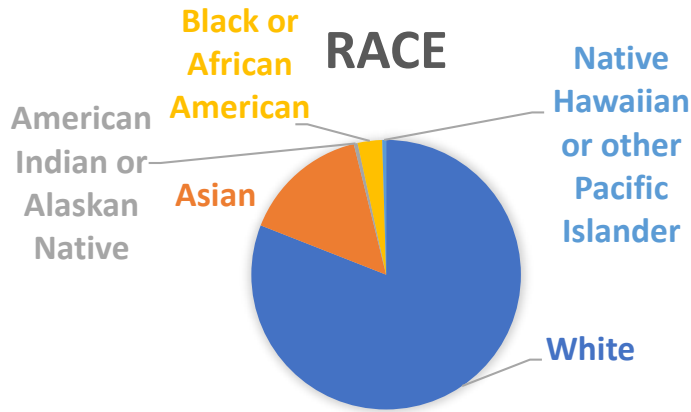
Currently Certified Geneticists v. Ever Certified per  
Year Initially Certified



## Summary

<b>Race</b>	<b>Percentage</b>
White	81%
Asian	15%
American Indian or Alaskan Native	0%
Black or African American	3%
Native Hawaiian or other Pacific Islander	0%
Response rate	78%
<b>Ethnicity</b>	<b>Percentage</b>
Hispanic or Latino	10%
Not Hispanic or Latino	90%
Response rate	79%
<b>Age range</b>	<b>Percentage</b>
25-39	20%
40-54	47%
55-69	32%
70+	1%
Response rate	99%
<b>Gender</b>	<b>Percentage</b>
Male	39%
Female	60%
Response rate	99%

# Board Certified Clinical Geneticists in the United States (Non-retired, participating in Continuing Certification)



# Board Certified Clinical Geneticists in the U.S. (Non-retired, participating in Continuing Certification)



1

2



17

# 2019 U.S. Clinical Genetics Workforce Survey

- ▶ Collaborative effort of ACMG (NCC) and ABMGG
- ▶ Survey of medical geneticists, focusing on the MD clinical geneticist workforce
  - 491 clinical geneticist responses – data on average work week (50 hrs), % clinical duties; location; wait time for new patients, etc.
- ▶ Conclusion: “...*still a gap between genetics services needed and workforce capacity. A concerted effort is required to increase the number of clinical geneticists and enhance interdisciplinary teamwork to meet increasing patient needs.*”
- ▶ **Published 5.3.2021** Jenkins, B.D., Fischer, C.G., Polito, C.A. *et al.* The 2019 US medical genetics workforce: a focus on clinical genetics. *Genet Med* (2021). <https://doi.org/10.1038/s41436-021-01162-5>

# Questions?