

County Council of Howard County, Maryland

2026 Legislative Session

Legislative day # 5

RESOLUTION NO. 47 - 2026

Introduced by: Chairperson at the request of the County Executive

Short Title: Appointment- Dr. Meghana S. Ray - Board of Health

A RESOLUTION confirming the appointment of Dr. Meghana S. Ray to the Board of Health.

Introduced and read first time on April 16, 2026.

By order

Michelle Harrod
Michelle Harrod, Administrator to the County Council

Read for a second time and a public hearing held on April 20, 2026.

By order

Michelle Harrod
Michelle Harrod, Administrator to the County Council

This Resolution was read the third time and was Adopted Adopted with amendments __, Failed __, Withdrawn __ by the County Council on May 4, 2026.

Certified by

Michelle Harrod
Michelle Harrod, Administrator to the County Council

NOTE: [[text in brackets]] indicates deletions from existing language; TEXT IN SMALL CAPITALS indicates additions to existing language. ~~Strike-out~~ indicates material deleted by amendment; Underlining indicates material added by amendment.

Dr. Meghana S.Ray

Core competencies

- Leadership and Vision
- Systems design
- Strategic thinker and Innovation
- Data driven decision making
- Negotiation and Collaboration
- Research translation
- Program stewardship
- Risk mitigation
- Relationship building
- Mixed methods research
- Dynamic and goal-oriented
- Accountable and Adaptable
- Performance management
- Mentoring and Coaching

Selected accomplishments

- 50+ conference presentations
- 40+ publications
- 21 projects successfully completed
- 12 courses taught
- 9 conferences/workshops/symposia organized
- 6 book chapters
- 2 commissioned books edited

Areas of Scientific Interest

- Health systems and services
- Technology and AI in healthcare
- Data standards implementation and evaluation
- Patient and Medication Safety
- Health Policy and Outcomes
- Disasters and Emergency Preparedness

Professional Overview

Director and Founder
HEED Lab, LLC, MD

1/2022-present

HEED Lab is a woman owned small business that brings seasoned professionals together to build and empower health systems. We works with programs that engage with communities, systems, and policy makers to make healthcare more effective, equitable, and efficient for all. Current projects include:

- Hospital readmissions in substance use
- Fiscal health assessments in behavioral care
- Downstream determinants of health in substance use
- Data asymmetry in behavioral and mental health datasets

Social Science Analyst, GS-14 (full time)

11/2023-7/2025

Substance Abuse and Mental Health Services Administration (SAMHSA), Rockville, MD

- Provided leadership of the Behavioral Health Services Information Systems (portfolio worth U.S. \$120 million) comprising of six distinct large data systems on Substance Use and Mental Health
- Led strategies and proposals on understanding challenges and barriers in data quality and reporting with state data officers
- Developed briefings and presentations to leadership on improving data quality and reporting
- Conducted analysis of behavioral health datasets to identify trends and patterns
- Identified and recommended data quality improvement and evaluation towards improving data systems
- Evaluated contractor performance and developing contract re-competition documents
- Member, HHS Data Science Workgroup
- Member, SAMHSA Internal workgroups - Gender Based Violence Workgroup, Aging Workgroup
- Federal Civilian Responder, HHS Emergency preparedness taskforce

Vice President and Co-Founder (part time)
Health Analytics Network, LLC, Pittsburgh, PA

6/2020-present

I co-founded Health Analytics Network to build multidisciplinary research teams addressing health analytics and disease modeling.

Program Officer (full-time)

12/2020-8/2022

Patient Centered Outcomes Research Institute, Washington DC

Managed a U.S. \$30 million + portfolio of funded studies in Suicide Prevention, Opioid Use Disorder, and Mental Health Services. I co-led the development of an accelerated call on increasing COVID-19 vaccinations among long-term care workers, and served as the lead Program Officer for the Integrated Health Systems call

Dr. Meghana S.Ray

for proposals. I co-led the Research Agenda Development team to develop operational processes for the national strategic priority on Learning Health Systems and a work group on diversity in funded studies.

Associate Director(full-time) 4/2018-12/2020
Program Evaluation and Research Unit, University of Pittsburgh, Pittsburgh, PA

Provided scientific inputs on research projects; conducted risk mitigation and management; oversaw and managed functional groups working on complex healthcare projects; provided strategy and direction for functional group processes; negotiated contracts; developed and submitted funding proposals; established a vibrant, positive and cooperative organizational culture; and maintained strong collaborations with internal and external stakeholders. I facilitated and promoted team spirit among staff and colleagues, developed communications pathways to disseminate information, contributed to the organization and projects on strategic thinking and problem solving, and developed focused narratives and communications.

Selected project examples and highlights:

Community Pharmacy Screening Project: Built a strong team of research and training specialists, negotiated contractual relationships with community pharmacies and managed care organizations, developed project protocols for data collection, analysis and disseminated findings.

Suicide prevention: Strategized implementation programs, oversaw literature reviews, provided guidance on surveys and outcome metrics, and developed and oversaw contracting and reporting processes.

Training programs for public health screening: Oversaw project planning, establishment of advisory committees, development of pre-post tests to address knowledge gains, data collection, analysis of results, and presentation and publication at various venues.

Associate Professor (full time) 9/2015-8/2017
Co-Coordinator, Post Graduate Diploma in Public Health Management
Indian Institute of Public Health, Hyderabad, India

Developed and taught two new courses to 60 MPH students. Co-coordinated the Post Graduate Diploma in Management program for 100+ enrolled healthcare professionals. Strategized and implemented large-scale projects in Diabetes Retinopathy and Retinopathy of Prematurity across 11 Indian states. Along with collaborators at University of Pittsburgh, I developed and delivered several international workshops/conferences to train Indian researchers on health analytics and disease modeling.

Assistant Professor and Co-Director of Accreditation, Tenure Track (full time) 6/2011-5/2015
Roosevelt University, Schaumburg, IL

I joined Roosevelt University's faculty for a new 3-year Pharmacy program focused on Public Health (unique in the Chicagoland area). I was recruited to develop co-direct the accreditation process. During my term, I chaired the Assessment committee, developed and taught graduate level courses, conducted service trips to Haiti, and developed research collaborations with members of the American Public Health Association.

Funded grants and projects:

- Systematic reviews of compounded preparations for neuropathic pain. International Association of Compounding Pharmacists. (PI) 2014
- Million Hearts Campaign. National Association of Chain Drug Stores Foundation. (PI) 2013
- Enhancing diabetes education in Schaumburg. Script Your Future Campaign. (PI) 2011-2012

Assistant Professor, Tenure Track (full time) 4/2009-5/2011
Midwestern University, Downers Grove, IL

Graduate Teaching and Research Assistant (part time) 8/2004-12/2009
University of Illinois at Chicago, Chicago, IL

Other Affiliations

University of Pittsburgh, Pittsburgh, PA 2/2018-4/2018
Visiting Research Assistant Professor, Graduate School of Public Health (full time)

California Northstate University, Elk Grove, CA 6/2015-5/2016
Adjunct faculty (part time)

U.S. Food and Drug Administration 2014-2015
Consultant, Risk Communications Advisory Committee (part time)

Walgreens Health Initiatives, Deerfield, IL 2007-2008
Health Outcomes Researcher (full time)

Awards and Achievements

American Public Health Association Pharmacy Section <i>Professional Abstract award</i>	2020
American Public Health Association Pharmacy Section <i>Professional Abstract award</i>	2019
University of Illinois at Chicago, Chicago, IL, USA <i>Outstanding Graduate Teaching Assistant award</i>	2007
University of Illinois at Chicago, Chicago, IL, USA <i>Van Doren Graduate Scholar for Research award</i>	2005
Illinois Institute of Technology, Chicago, IL, USA <i>Academic Scholarship for Excellence</i>	2000-2003

Education

Ph.D. in Health Policy University of Illinois at Chicago, Chicago, IL, USA	2004-2009
M.B.A. in Marketing and Information Management Illinois Institute of Technology, Chicago, IL, USA	2000-2003
B.Pharm in Pharmaceutical Sciences University of Bombay, India	1996-1999

Books and Book Chapters (Prior publications under Desai M, Aruru M.)

- **Ray M.S.** Sustainability Regulations (currently) in the pharmaceutical sector. In: Lamprou, D. Sustainability in the Manufacturing of Pharmaceuticals. Elsevier. *In print.* 2025+
- **Ray M.S.** Reimagining Asian Women Scholars in Academic Spaces. In: Njoku A and Evans M (eds). Navigating COVID-19: Perspectives and Strategies from Women of Color in Academia. Palgrave Macmillian/Springer Nature. <https://doi.org/10.1007/978-3-031-35613-1>. 2023.
- **Desai M**, Truong HA, Normann S. Disasters and Emergencies: A Planning and Response Guide for Pharmacy Professionals. *American Pharmacists Association.* 2021.
- Bleidt B, Cogan P, Birrer K, Truong HA, **Desai M**. Chapter 4: Individual Leadership, Organizational Planning, and Community Partnerships. In: Desai M, Truong HA, and Normann S. Disasters and Emergencies: A Planning and Response Guide for Pharmacy Professionals. *American Pharmacists Association.* 2021
- Arya V, Bratberg J, Walker C, **Desai M**. Chapter 6: Post-disaster recovery and resilience for patients, providers, and communities. In: Desai M, Truong HA, and Normann S. Disasters and Emergencies: A Planning and Response Guide for Pharmacy Professionals. *American Pharmacists Association.* 2021.
- **Aruru M**, et al. Your Roadmap to a Career in Managed Care Pharmacy. *Acad Manag Care Pharm.* 2014.

Selected Peer-reviewed Publications (Prior works under Desai M, Aruru M.)

1. Wainwright B, Ghasemi E, Ali MN, **Ray MS**, Pyne S, Jammalamadaka SR. Circadian Gene Expression Analysis Using an Enhanced Circular Functional Framework. *Sankhya B : The Indian Journal of Statistics.* <https://doi.org/10.1007/s13571-025-00379-7>
2. Okoro O, Umaru O, **Ray MS**. Untapped Opportunities: The Unique Value Proposition of Women of Color Pharmacists. *J Am Pharm Assoc.* DOI: 10.1016/j.japh.2025.102482 External Link
3. Deo V, Gurewitsch R, Guha S, **Ray M**, Pyne S. Analysis of Spatial and Temporal Patterns in Deaths of Despair in the Appalachian Region of the United States. *Statistics and Applications.* *Statistics and Applications*, 22(3): 555-573, 2024.
4. Guha S, Alonzo M, Goovaerts P, Brink L, **Ray M**, Bear T, Pyne S. (2024). Disaggregation of Green Space Access, Walkability, and Behavioral Risk Factor Data for Precise Estimation of Local Population Characteristics. *Int. J. Environ. Res. Public Health* 2024, 21(6), 771.
5. Okoro O, Umaru O, **Ray M**. (2024). Women of Color in the Health Professions: A Scoping Review of the Literature. *Pharmacy* 2024, 12(1), 29.
6. Ali MH, **Ray M**, Jammalamadaka SR, Senthil S, Srinivas MB, Pyne S. (2023). Focused analysis of RNFL decay in glaucomatous eyes using circular statistics on high-resolution OCT data. *PLoS ONE* 18(10): e0292915.
7. Deo V, Pyne S, **Ray M**, Rao M. (2023). Investigating Regional Income-Based Shared Frailty among Women with Breast Cancer. *Special Proceedings of the 25th (Silver Jubilee) International Annual Conference of the Society for Statistics, Computer and Applications* 2023. pp 205-215.

8. Cernasev A, Claus K, Stewart S, Rowe S, **Ray M.** (2023). Quō vādis? From disaster management to building community resiliency: Medical Reserve Corps and their unique potential. *Int J Disast Risk Reduct.* 92: 103673.
9. Pyne S, Guha S, Das S, **Ray M,** Chandra H. (2023). Food insecurity in the Eastern Indo-Gangetic plain: Taking a closer look. *PLoS One.* 18(1): e0279414.
10. Ray S, **Desai M,** Pyne S. (2022). Systematic mining of patterns of polysubstance use in a nationwide population survey. *Comp Biol Med.* 151(Part A): 106175.
11. **Desai M,** Njoku A, Nimo-Sefah L.(2022). Comparing Environmental Policies to Reduce Pharmaceutical Pollution and Address Disparities. *Int. J Env Res Pub Health.* 19(14):8292.
12. Axon DR, Cernasev A, **Desai M,** Connor SE, Jonkmann L, Sekar MC. (2022). Evaluating Students' COVID-19 Knowledge, Attitudes, and Practices (COVKAP) during the COVID-19 pandemic. *Pharmacy.* 18;10(2):46.
13. Connor S, Jonkmann L, **Desai M.** (2021). Quō vādis? Pharmacy's unique role in short term medical missions. *J Am Pharm Assoc.* S1544-3191(21)00424-6.
14. Ali MH, Wainwright B, Petersen A, Jonnadula GB, **Desai M,** Rao HL, Srinivas MB, Rao JS, Senthil S, Pyne S. (2021). Circular functional analysis of OCT data for precise identification of structural phenotypes in the eye. *Nature Sci Rep.* 11, 23336.
15. Cernasev A, **Desai M,** et al. (2021). Student Pharmacists during the pandemic: Development of a COVID-19 Knowledge, Attitudes, and Practices (COVKAP) Survey. *Pharmacy.* 9(4), 159.
16. Gharani P, Ray S, **Aruru M,** Pyne S. (2021). Differential patterns of social media use associated with loneliness and health outcomes in selected socioeconomic groups. *Journal of Technology in Behavioral Science.*1-10.
17. Cernasev A, **Aruru M,** et al. (2021). Empowering Public Health Pharmacy Practice—Moving from Collaborative Practice Agreements to Provider Status in the U.S. *Pharmacy.* 9(1).
18. **Aruru M,** Truong HA, Clark S. (2021). Pharmacy Emergency Preparedness and Response (PEPR) Framework for Expanding Pharmacy Professionals' Roles and Contributions to Emergency Preparedness and Response during the COVID-19 Pandemic and Beyond. *Res Soc Admin Phar.* 17(1): 1967-1977.
19. Santa H, Amirova S, Ventricelli D, Downs G, Nowalk A, Pringle J, **Aruru M.** (2021). Preparing pharmacists to increase naloxone dispensing within community pharmacies under the Pennsylvania standing order. *Am J Health-System Pharm.* 78(4):327-335.
20. **Aruru M,** et al. (2021). Emergency Preparedness and Response (EP&R) by pharmacy professionals in India: Lessons learned from the COVID-19 pandemic and the way forward. *Res Soc Admin Phar.* 17(1): 2018-2022.
21. **Aruru M,** et al. (2020). A data-driven approach to COVID-19: resources, policies, and best practices. *BLDE Univ J Healt Sci.* 5(2): 226-231.
22. Pyne S, Ray S, Gurewitsch R, **Aruru M.** (2020). Transition from Social Vulnerability to Resiliency vis-à-vis COVID-19. *Statistics and Applications.* 18(1): 197-208.
23. Maleki M, McLachlan GJ, Gurewitsch R, **Aruru M,** Pyne S. (2020). A Mixture of Regressions Model of COVID-19 Death Rates and Population Comorbidities. *Statistics and Applications.* 18(1): 295-306
24. Pyne S, Ali MH, **Desai M,** Rao HL. (2019). Quantification of retinal nerve fiber layer changes in OCT images reveals differential progression of Glaucomas. *BLDE J Health Sci.* 4(2): 85-89. doi: 10.4103/bjhs. bjhs_74_19.
25. **Aruru M,** Salmon J. (2019). Multiple Sclerosis in India – Drivers of access and affordability. *MOJ Public Health.* 8(1):1-6. doi: 10.15406/mojph.2019.08.00275.
26. Pyne S, **Aruru M.** (2019). Antifungal resistance: Implications for policy and research. *BLDE J Health Sciences.* 4(1):50-51.
27. Pringle J, Cochran J, **Aruru M.** (2019). Role of Pharmacists in the Opioid Use Disorder crisis. *Res Social and Admin Phar.* 15(2):228-229

Doctoral Thesis

Health Communication and Functional Health Literacy: Impact on Medicare Beneficiaries (UMI 3394319). 2009

Conference Presentations

1. **Ray M.** Co-organizer, “Housing Stability, Homelessness, and Behavioral Health Treatment(s): Applying Statistics to Inform Public Health Policy” Joint Statistical Meetings. 2024.
2. **Ray M.** Co-organizer, ‘Workshop on Mental Health data reporting challenges and successes’. Council of State and Territorial Epidemiologists. 2024.
3. Okoro O, Umaru O, **Ray MS.** ‘Intersectionality of gender and race in the health professions: A scoping review of women of color’. American Public Health Association Annual Meeting. 2024,
4. **Ray MS,** George B. ‘Healthcare workers outflux from African nations: Impact on local populations’. Healthcare workers outflux from African nations: Impact on local populations. American Public Health Association Annual Meeting. 2024.

Dr. Meghana S.Ray

5. **Desai M** (Moderator). Invited Session on ‘Pharmaceutical pollution in the Environment–A time for change’. American Public Health Association Annual Meeting. 2022.
6. Das N, Cooper M, Tenerelli P, **Desai M**, Clark S, Truong HA. ‘Unifying pharmacists across practice settings to address public health emergencies and disasters: A new Call-to-Action’. American Public Health Association Annual Meeting. 2022.
7. Cernasev A, Knight P, DiPietro-Mager N, Clark S, Subramaniam V, **Desai M**. ‘Maximizing Pharmacists’ Roles Using Collaborative Pharmacy Practice Agreement and Provider Status in the U.S.’. International Pharmaceutical Federation. 2022.
8. Ray S, **Desai M**, Pyne S. ‘A computational framework for identifying patterns of association and transition in addictive substances use over five decades in the US.’ American Public Health Association. 2021.
9. Stewart S, Claus S, **Desai M**, Patel U, Cernasev A. ‘Explicating pharmacist’s roles and responsibilities in the medical reserve corps during COVID-19.’ American Public Health Association. 2021.
10. Truong HA, Sensmeier M, Cernasev A, **Desai M**, Clark S, DiPietro Mager N, Subramaniam V. ‘Emergency Preparedness and Response Opportunities for Pharmacists in the U.S. to Combat Pandemics’. International Pharmaceutical Federation. 2021.
11. Gurewitsch R, **Aruru M**, Goovaerts P, Pyne S. ‘Spatial modeling of lead water contamination risk in local communities of Pittsburgh, PA.’ American Public Health Association. 2020.
12. **Aruru M**, Clark S, DiPietro Mager N, Subramaniam V, Cernasev A, Truong HA. ‘2020 Call for action: Empower Public Health Pharmacists for a healthy nation’. American Public Health Association. 2020.
13. Holmes K, et al. ‘Project Lifeline: The Role of Certified Recovery Specialists in Facilitating Patient Access to Substance Use and Opioid Use Disorder Treatment within Pharmacy Settings’. American Public Health Association. 2020.

Leadership and Service

- Member, SAMHSA Internal Workgroups - Gender Based Violence Workgroup, Aging Workgroup
- HHS Federal Civilian Responder
- Chair, Pharmacy Section, American Public Health Association, November 2022-2023
- Chair Elect, Pharmacy Section, American Public Health Association, October 2021-2022
- Co-Chair, Intersectional Emergency Preparedness Task Force, American Public Health Association. 2020+
- Co-Chair, Participant Diversity Analysis, PCORI, March 2021-August 2022
- Co-Lead, Research Agenda Development team on ‘Learning Health Systems’, National Strategic Priority Initiative, PCORI, April 2021-August 2022
- Co-Lead, Call for Proposals on Vaccine Hesitancy in Long-term care workers, PCORI, 2021
- Directed and conducted organizational redesign, PERU, University of Pittsburgh, 2019-2020

Editorial and Reviewer Activities

- Academic Editor, PLOS One, PLOS.
- Editorial Board Member, Hospital Administration and Medical Practices, Spring Media Publishing.
- Editorial Board Member, BLDE University Journal of Health Sciences, Wolters Kluwer Health.
- Manuscript reviewer - PLoS One, International Journal of Environmental Research and Public Health, Pharmacy, Healthcare, Research in Social and Administrative Pharmacy.
- Abstract reviewer - American Public Health Association, International Pharmaceutical Federation.

Professional service

- Grant reviewer, SAMHSA and AHRQ
- Member, Data Council, Health and Human Services, 2024-2025.
- Member, Advocacy Committee, Maryland Public Health Association, 2022.
- Section Chair, American Public Health Association Pharmacy Section, 2022.
- Member and abstract reviewer, Pharmacy Section, American Public Health Association, 2018-present.
- Member and abstract reviewer, Environment Section, Women’s caucus, Health Administration, American Public Health Association, 2020-present.
- Chair Elect, Pharmacy Section, American Public Health Association, 2021-2022.

Community service

- Federal Emergency Responder
- Emergency responder, Howard County, MD; Allegheny County, PA, and DuPage County, IL.
- Researcher at Cap Haitien Health Network, Cap Haitien, Haiti.
- Volunteer, Multiple Sclerosis Society of India, Hyderabad, India.