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August 27, 2021

E. Albert Reece, MD, PhD, MBA
Dean and Vice President for Medical Affairs
14th Floor Bressler Research Building
655 West Baltimore Street
Baltimore, Maryland 21201

Dear Dean Reece:

Enclosed please find the Department of Epidemiology and Public Health's fiscal year 2021 (FY2021) annual report. While the campus continues to deal with the pandemic and adapt to changes in how we work and interact personally and professionally, the department continues to thrive and remain productive in research, education, clinical care, leadership, and community outreach as highlighted in this report.

Sincerely,

A handwritten signature in black ink that reads "Jay Magaziner".

Jay Magaziner, Ph.D., M.S.Hyg.
Professor and Chair

Enclosure



University of Maryland
School of Medicine

DEPARTMENT OF EPIDEMIOLOGY AND PUBLIC HEALTH

Fiscal Year 2021 Annual Report
(July 1, 2020-June 30, 2021)

Chair:
Jay Magaziner, PhD, MSHyg

DEPARTMENT OF EPIDEMIOLOGY AND PUBLIC HEALTH

**Fiscal Year 2021 Annual Report
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EPH EXECUTIVE SUMMARY FOR FISCAL YEAR 2021

The executive summary below outlines the department's activities in fiscal year 2021 (FY2021).

Research. EPH faculty remained focused on achieving the School of Medicine (SOM) mission areas related to research. EPH faculty published a total of 112 peer-reviewed papers. In FY21, the department submitted 164 grant applications, requesting \$62.6m in TCs and receiving \$47m in funding.

Awards in FY21 were down by 17% from FY2020. Compared to the three previous years (FY16,17,18), EPH funding is up by 69% overall, 69% in federal funding and 57% in NIH funding for the last three years (FY19,20, and 21). The department currently receives 91% of its extramural funding from federal sources. Based on the 2020 Blue Ridge Report on NIH funding, Epidemiology and Public Health (EPH) was ranked #1 in departments of its type in public schools of medicine and #4 among like departments in schools of medicine nationwide.

Education. During FY2021, all academic programs associated with the department continued with distance learning and have made the necessary adjustments to return to in person teaching in the fall 2021. Both the Medical Student Teaching and Clinical Research Education and Training Programs experienced changes in leadership, with Anthony Harris, MD, MPH (Medical Student) and Jennifer Albright, PhD (Clinical Research) taking over in these programs. EPH continued to grow the academic programs with highlights that include a new 5-year HRSA grant in support of residents, and expansion of the Gerontology program through the development of the Costa Rican exchange program and an MS in Gerontology. Our residency program received continued accreditation by the Accreditation Council for Graduate Medical Education with no citations and a 100% 6-year board exam pass rate. EPH academic program highlights include 43 graduates, ongoing NIH student support, and student honors and achievements (see appendix C).

Clinical Service. For FY2021, eight outstanding EPH faculty provided clinical care. The infection control group, led by Anthony Harris, MD, MPH, responded to the pandemic and provided both clinical care and infection prevention services across the University of Maryland Medical System. Wendy Lane, MD, MPH continued her work with children exposed to abuse and neglect. As the new Director of the CHAMP program (Child Abuse Medical Professionals), Dr. Lane is making an impact through her leadership and training of pediatric interns and health care professionals in this area.

Community Outreach

While the pandemic continued to affect participation in some of our usual annual service activities, through a student sponsored food drive and mindfulness virtual workshop to reduce stress during the pandemic, the department was able to stay involved in the community. The MPH Program service-learning requirement received enthusiastic participation and this requirement served as a platform for structured engagement in service. Department faculty and staff also were engaged in many other community wide activities where their public health expertise was put into practice in response to the pandemic.

Administration. In FY21, EPH was fully functioning and running at maximum capacity. EPH faculty and staff effort reporting is complete, employee timesheets were submitted and approved in a timely manner, and the PCA accounts are balanced. The business and administrative staff continue to support the ongoing research and academic activities remotely and without interruption. Building the EPH social media presence continued through FY21 while and the department worked to keep the department connected through various virtual events and activities.

Finance: All state and revolving accounts were balanced at year-end and the year-end balance in the DRIF account was just under \$1m.

Development: In FY2021, we received \$462,000 in new funds and gifts that provided funding for a new Endowed Lecture in Translational Health Sciences. Proceeds of \$100K from the annual gala will provide seed funding for pilot projects for the Program in Health Equity and Population Health, and an annual gift to the EPH Unrestricted Fund from a new donor who will contribute annually through his corporation's matching gift program.

FISCAL YEAR 2021 ACCOMPLISHMENTS

COVID-19 Pandemic-related Research and Other Activities

EPH faculty are collaborating at UMB, across the US, and around the world to address the Covid-19 pandemic. Below is a table that briefly summarizes many of these important efforts by faculty within the department in FY2021.

Faculty	Activity
Soren Bentzen, MSc, PhD, DMSc	<ul style="list-style-type: none"> • Member of the UMD COVID-19 Research Advisory Task Force Study Section • Collaborating in a Randomized Placebo Controlled Trial of Imatinib vs Best Conventional Care for Hospitalized Patients with COVID-19 and published Emadi A, Chua JV, Talwani R, Bentzen SM, Baddley J. <u>Safety and Efficacy of Imatinib for Hospitalized Adults with COVID-19: A structured summary of a study protocol for a randomised controlled trial.</u> <i>Trials.</i> 2020 Oct 28;21(1):897. doi: 10.1186/s13063-020-04819-9. PMID: 33115543 • Member on an international research collaboration examining the evidence supporting short fractionation schedules in radiation oncology introduced due to Covid-related resource constraints. The results of this work are published: Thomson DJ, Yom SS, Saeed H, El Naqa I, Ballas L, Bentzen SM, Chao ST, Choudhury A, Coles CE, Dover L, Guadagnolo BA, Guckenberger M, Hoskin P, Jabbour SK, Katz MS, Mukherjee S, Rembielak A, Sebag-Montefiore D, Sher DJ, Terezakis SA, Thomas TV, Vogel J, Estes C. <u>Radiation Fractionation Schedules Published During the COVID-19 Pandemic: A Systematic Review of the Quality of Evidence and Recommendations for Future Development.</u> <i>Int J Radiat Oncol Biol Phys.</i> 2020 Oct 1;108(2):379-389. doi: 10.1016/j.ijrobp.2020.06.054. Epub 2020 Aug 11. PMID: 32798063
Ann Gruber-Baldini, PhD	<ul style="list-style-type: none"> • Collecting data on a collaborative Gilead-funded study to conduct follow-up telephone interviews about the impact of COVID-19 on aging and HIV study participants
Anthony Harris, MD, MPH, GECO, and the Maryland Infection Control Group (MICG)	<ul style="list-style-type: none"> • The Division of Genomic Epidemiology and Clinical Outcomes (GECO) Center of Excellence in Infection Control awarded CDC funds for COVID-19 research. • Largest study of its kind led by GECO researchers identified which COVID-19 patients face greatest risk of mortality during hospitalization. • Research revealed effectiveness of single dose vaccine in healthcare workers previously infected with COVID-19. • Research revealed that pregnant women who were hospitalized with COVID-19 were not at increased risk of death or poor outcomes. • Research analyzed risk factors for COVID-19 transmission in nursing homes • GECO team received press coverage from major news outlets on COVID-related research and best practices in COVID-19 infection prevention. • Maryland Infection Control Group (MICG) consulted with a range of businesses, educational institutions, and other non-profits on best practices on COVID-19 infection prevention and control. • GECO team continues to collect data to clarify what works in treating COVID-19 and plan the next phase of COVID-19 pandemic response. • Recognized nationally as one of 11 CDC Centers of Excellence in Infection Prevention and Control, the GECO team conducts ground-breaking research directed at preventing the transmission of antibiotic resistant bacteria and viruses like COVID-19. In FY21, the team continued efforts to control and prevent transmission of COVID-19 among healthcare workers and patients throughout Maryland. Responsible for the infection control response for UMMS, the group also expanded their clinical research to measure the prevalence of COVID-19 antibodies among healthcare personnel in the University of Maryland Medical System and the Baltimore VA Healthcare System.
Erin Hager, PhD, Program in Health Equity and Population Health	<ul style="list-style-type: none"> • PI on R01 entitled, "COVID-19 Policies: Impact Over Time on Child Health, Obesity, and Disparities" funded through the NIH/NICHD from 06/01/2021-5/31/2025. • Co-Principal Investigator (with H. Lane) on "Adding plays to the "playbook:" translating school meals programs during COVID-19 to best practices for future school closures," Share Our Strength 01/01/2021-12/31/2021. • Co-Principal Investigator (with M. Black) on "Policies to Prevent Spread of COVID-19: Implications for Health Equity among Maryland Families of Preschool and School-Age

	<p>Children,” funded through the UMB Institute for Clinical & Translational Research (ICTR) COVID-19 Accelerated Translational Incubator Pilot (ATIP) Award from 08/01/2020-07/30/2021.</p> <ul style="list-style-type: none"> Submitted: R01 in June 2021 entitled “Pandemic-related disruptions in school operations and family routines: Impact on children’s socio-emotional behavior, academic performance, and mental health.” National award: Society for Nutrition Education and Behavior (SNEB), Advisory Committee on Public Policy, Health Promotion Policy Award for a Group Contribution to Policy Change (awarded to ad hoc COVID-19 Nutrition Response Working Group, co-chair) Continued as co-chairs for a CDC working group on the nutrition response to COVID-19. Through this network, Dr. Hager has been able to highlight the important COVID-19 food insecurity work being done in Maryland.
Laundette Jones, PhD, MPH, Program in Health Equity and Population Health	<ul style="list-style-type: none"> UMSOM rep for the UMB school-wide COVID-19 Recovery Task Force “Community focus area” subcommittee. https://www.umaryland.edu/coronavirus/rtf/community/ Transdisciplinary Research for Community and Social Impact
Wendy Lane, MD, MPH	<ul style="list-style-type: none"> Working on a multicenter study examining changes in rates of hospitalizations and emergency department visits for child physical abuse in the wake of the COVID-19 pandemic,
Surbhi Leekha, MBBS, MPH	<ul style="list-style-type: none"> Developed all UMMS guidance related to protection of healthcare workers from SARS-CoV-2 Provided clinical and epidemiologic expertise to develop an algorithmic approach to testing patients and employees for SARS-CoV-2 and other respiratory viruses. Guided the implementation of a comprehensive workplace contact tracing program as well as protocols for exposure risk assessment, quarantine, and testing, used by both UMMS and UMB Developed policies for infection prevention precautions at UMMS alternate care sites including guidance on layout, ventilation, and PPE Coordinated the linkage of UMMS clinical COVID-19 samples with SARS-CoV-2 sequencing efforts by UMB (IGS) helping the state of Maryland meet national requirements for SARS-CV-2 sequencing
Laurence S. Magder, PhD	<ul style="list-style-type: none"> Led a collaboration on the development of a protocol to perform a case-control study to assess the impact of social distancing and personal protection activities on risk of infection with COVID-19. Received anonymous survey responses from more than 2000 patients who attended UMB. Analyzed and presented the results at a DEPH seminar. Survey is completed and additional analyses are pending.
Jay S. Magaziner, PhD, MS Hyg	<ul style="list-style-type: none"> Drs. Magaziner, Timofte, and Ma are CO-PIs on “Prognostic biomarkers of disease severity for patients infected with coronavirus COVID 19,” funded by NIA P30 AG028747-15S, UM-OAIC COVID Supplement.
Lyndsay M. O’Hara, PhD, MPH	<ul style="list-style-type: none"> Collaborated on a study that describes the healthcare personnel (HCP) testing experience using SARS-CoV-2 PCR and serologic testing early in the COVID-19 pandemic. We did not find increased infection risk related to COVID-19 patient contact. Our findings support workplace policies for HCP protection and underscore the role of community exposure and asymptomatic infection. O’Hara LM, Schrank GM, Frisch M, Hogan R, Deal K, Harris AD, Leekha S. COVID-19 symptoms, patient contacts, PCR-positivity and sero-positivity among healthcare personnel in a Maryland healthcare system. Infection Control and Hospital Epidemiology. In press. Collaborated on a cross-sectional study of 24,749 healthcare personnel in 3 US states to assess what risk factors are associated with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) seropositivity among health care personnel inside and outside the workplace. Jacob JT, Baker JM, Fridkin SK, Lopman BA, Steinberg JP, Christenson RH, King B, Leekha S, O’Hara LM, Rock P, Schrank GM. Risk factors associated with SARS-CoV-2 seropositivity among US health care personnel. JAMA network open. 2021 Mar 1;4(3):e211283-. Collaborated on a study that aimed to evaluate the risk for in-hospital death among pregnant and nonpregnant patients of reproductive age hospitalized with COVID-19,

	<p>because studies with more thorough ascertainment of COVID-19 in pregnancy are needed to provide the foundation for clinical management and health care policy. This retrospective cohort included 1062 pregnant and 9815 nonpregnant patients hospitalized with COVID-19 and viral pneumonia.</p> <ul style="list-style-type: none"> • Pineles BL, Goodman KE, Pineles L, O'Hara LM, Nadimpalli G, Magder LS, Baghdadi JD, Parchem JG, Harris AD. In-Hospital Mortality in a Cohort of Hospitalized Pregnant and Nonpregnant Patients With COVID-19. <i>Annals of Internal Medicine</i>. 2021 May 11.
Denise Orwig, PhD	<ul style="list-style-type: none"> • Funded grant (ongoing): Feasibility of Remote Home Support Coaches to Decrease the Physical and Psychological Impact of Social Distancing on Older Adults NIA Pepper Center Supplement (P30AG031679) [MPIs: Orwig, Latham and Bhasin]. This is a feasibility study that will test a 4-month telephone-based behavioral activation intervention in 50 older adults 75 and older to address key problems arising as a result of the COVID pandemic: physical inactivity, social isolation and inadequate nutrition. • Collaborated with UMB's Center for Vaccine Development to increase older adult participation in two Phase 3 RCT testing a COVID vaccine (Moderna and Novavax). • Submitted 5-year R01 (pending): Air Surveillance of COVID-19 in High Risk Clustered Vaccinated and Non-vaccinated Populations Using an Integrated Multimodal Approach Empowered by Machine Learning [MPIs: Pan, Flynn, Orwig]
Kerri Thom, MD, MS	<ul style="list-style-type: none"> • Individualized student advising for residency planning in light of changes related to COVID • Successful match for the CO2021 • Planned/prepared/implement the return of CO2024 medical students to in-person learning • Hosted CO2025 students for introduction to medical school
Michael Terrin, MDCM, MPH	<ul style="list-style-type: none"> • Collaborated on an internally (un)funded pilot study and the Department of Defense funded (ongoing) clinical trial of temperature control for the acute respiratory distress syndrome has included COVID-19 patients. • Collaborated on a R21 to the NIH for a study of the microbiome in relation to severity of disease among COVID-19 patients. • Collaborated on the Big Ten COVID Cardiac Registry. A first publication appeared in <i>JAMA Cardiology</i> last spring and established the prevalence of cardiac abnormalities in 1597 elite (Big Ten team) athletes infected with SARs-CoV-2 as 2-3%. That frequency is concerning to and was noted by Chancellor Perman in his response to statements by Congressman A. Harris, Rep. MD. This collaboration received support in summer (FY22) from Presidents Pines and Jarrell through MPower.
Kate Tracy, PhD	<ul style="list-style-type: none"> • Co-chair University System of Maryland COVID workgroup advising Chancellor Perman on return to campus strategies • Serve as a member of the Towson University COVID Medical Advisory Committee • Serves as the Project Director and Special Advisor to the Senior Vice Chancellor for Academic and Student Affairs of the USM for implementing COVID preventive measures (e.g., testing and symptom monitoring, vaccination, masking) for the University System of Maryland • The Clinical and Translational Research Informatics Center (CTRIC) is providing ongoing data capture and management support for UMB's occupational health monitoring for COVID-19.

Research.

The department is the primary home to 50 faculty members in five different cost centers. EPH faculty published a total of 112 peer-reviewed publications and articles. Department faculty were extremely productive submitting 164 grant applications totaling \$62.6m in requested total costs, including submission of the P30 Pepper Center competing continuation (that was officially awarded in July of FY22) and a large multi-investigator U01 proposal under the leadership of Dr. Sally Adebamowo that was also funded in FY21.

Active extramural awards to all faculty with primary appointments in the department totaled \$47m (By cost center: \$21.5m to those in the primary EPH cost center; \$14m to those in centers/institutes (N=8); and \$11.3 to faculty in the Cooperative Studies Coordinating Center (CSPCC (n=1)) in Perry Point. While awards were down by 17% from FY2020 it should be noted that last year was a record year in funding for EPH as evidenced by the FY20 Blue Ridge Report ranking Epidemiology and Public Health #1 among like departments in public schools of medicine and ranked #4 in NIH funding among like departments in schools of medicine nationwide.

Dollars per faculty member remained high with an overall average of \$941k per faculty. Total FY2021 federal funding decreased 9%, It is not unusual for funding to fluctuate from year to year as projects are awarded and faculty devote time to carrying them out. Compared to the three previous years (FY16,17,18) our funding is up by 69% overall, 69% in federal funding and 57% in NIH funding for FY19,20, and 21. Finally, based on the 2020 Blue Ridge Report, Drs. Owen White, Jay Magaziner and Michael Terrin were again nationally ranked among the top 100 medical school research faculty to receive NIH funding in public health-like departments.

Program in Health Disparities and Population Health combines research, education, and service to advance health equity by addressing the critical health issues often influenced by the social determinants of health. Under the leadership of Director Erin Hager, PhD, and Deputy Director Laundette Jones, PhD, MPH, and Associate Director, Lily Jarman-Reisch, MSW, the Program in Health Equity and Population Health combines research, education, and service to advance health equity by addressing the critical health issues often influenced by the social determinants of health. In FY21, the program expanded its research project inventory of program affiliate grants to foster collaboration and grant submissions and expanded the membership to 152 total affiliates, 116 from SOM; of these, 25 from EPH. These numbers represent a dramatic increases from FY20 and FY19: FY20, 82 total affiliates, 72 from SOM; FY19, 73 total affiliates, 57 from SOM. In FY21, there were 292 active grants totaling \$87,857,493. Of these, 185 were from SOM affiliates totaling \$45,725,589, with 61 projects totaling \$15,619,070 from affiliates in the Department of Epidemiology and Public Health and 46 from other UMB schools and UMBC totaling \$26,512,834.

Research Honors/Awards

- Department received CDC Prevention Epicenter Award, a 5-year research program working to implement innovative strategies to improve healthcare quality and patient safety through academic partnership aimed to create new knowledge through collaborative research that leads to the prevention of healthcare-associated infections (HAIs), antibiotic resistance, and other adverse health outcomes.
- Jay Magaziner, Ph.D., MS Hyg, Professor and Chair, Department of Epidemiology and Public Health, was named the University's Researcher of the Year for Founder's Week 2020.
- Kathryn Hughes Barry, PhD, MPH, NIH Loan Repayment Program Award in Health Disparities, NCI

Education.

The EPH educational programs continued to thrive in FY2021 and the graduates are strong representatives of the School of Medicine's public health and epidemiology training. Below are brief updates about each academic program.

- *Clinical Research Education and Training Program - MS in Epidemiology and Clinical Research, Clinical Research Track and Certificate in Clinical Research:* Fourteen students were admitted last year; eight to the MS and five to the certificate program. All courses were offered online in a synchronous format in accordance with campus COVID-19 policies. Nine MS students graduated including one MD/MS dual degree student. Kristen Stafford, MPH, PhD has led the program for the last four years and is transitioning leadership of the program to Jennifer Albrecht, PhD, who has been appointed as the new Director of Clinical Research Programs starting in July 2021.
- *PhD and MS Programs in Epidemiology and Human Genetics:* Ann Gruber-Baldini, PhD, continued to lead Epidemiology and Human Genetics Program. FY2021 saw a decrease in the number of applications received when compared with FY2020 (but was similar to the numbers in FY2019), and we maintained high quality in the applicant pool. Forty-eight PhD students will be enrolled this fall, including seven new students. There will be one new Human Genetics student in the MS Program. Six PhD, 1 MS HGEM, and 7 MS Clinical Research students graduated in FY2020. We have had a number of PhD students (>15) receive external funding. Three students were funded through an F31, 2 students were funded on an F30/F31 (and 3 others submitted for funding), 1 with a diversity supplement from the American Association of Sleep Medicine, 1 Fulbright scholar, 3 Fogarty fellows, 2 National Cancer Institute Graduate Partnerships Program fellows, and 4 students funded on T32 programs.
- *Ph.D. in Gerontology:* The dual-campus program (UMB/UMBC) continued to thrive in its 20th year under the co-leadership of SOM faculty, Denise Orwig, PhD and UMBC faculty, John Schumacher, PhD

(secondary appointment in EPH/SOM). There are 52 program faculty affiliates across the UMB and UMBC campuses (adding faculty from two new departments: Information Systems and Computer Science and Electrical Engineering). Three full-time students and one part-time student enrolled for the fall 2020 semester and one student returned to complete her PhD bringing the total enrollment in the program to 23 students. The students were primarily funded on faculty grants or state GRAs. As of May 2021, a total of 45 students graduated, with 1 new graduate this fiscal year. A recent graduate accepted a post-doctoral position with UMB SOM's Department of Epidemiology and Public Health. Student accomplishments include: 10 student publications (5 first author), 20 oral presentations and poster presentations, and 11 student awards. The program created and distributed their seventh annual newsletter. The Program continues to work with the Graduate School to establish an exchange fellowship in aging research with the University of Costa Rica. The exchange fellowship is expected to begin accepting applications by early 2022 to be able to start in the fall 2022 after a delay due to COVID-19. We have also continued to develop an online MS Program in Gerontology with support from the Graduate School. The MS in Gerontology proposal has been reviewed by the Graduate Council and was submitted to MHEC in July for approval. The goal is to have an inaugural class in summer 2022. We are very proud of how our students and faculty have persevered over the past year with the transition to remote teaching and learning. We feel confident that our students received the same level of education that would have occurred in-person. We had regular check-in sessions with students, and follow-up with teaching faculty and mentors. We also ensured that students knew about and had access to resources on both campuses needed during the challenging year.

- *Medical School Teaching:* Anthony Harris MD, MPH, took over as the Director of the Epidemiology Section in the medical school curriculum. In that capacity, Dr. Harris coordinated the epidemiology and biostatistics curriculum, arranged and scheduled lectures/small group sessions, and is active on a number of the medical school curriculum committees including the Foundations Leadership committee and the Pre-Clerkship committee. It was a particular trying year with all teaching moving to zoom and a new Renaissance curriculum. Also, in 2021, the lectures are moving back to in-person with a change in the small group lecturing formats. In the past year, EPH faculty members gave over 15 lectures in epidemiology and biostatistics: and over one dozen primary/secondary faculty members served as small group facilitators for epidemiology small group sessions.
- *Master of Public Health (MPH):* The MPH Program, directed by Diane Marie St. George, PhD, enrolled its second cohort of students (n=13) into the newly revamped 2018 curriculum and graduated 19 students. Two MPH students, Shaikh Afaq and Stephanie Sanchez, were members of the winning UMB team for the DC Public Health Case Challenge at the National Academy of Medicine. Lahila-Carina Ojeda, MPH student and Preventive Medicine resident, was selected as one of the National Delta Omega poster winners and presented her work at the American Public Health Association conference in November 2019.
- *Preventive Medicine Residency:* Wendy Lane, MD, MPH, continued to lead the residency program in FY21. One resident had his work from the Research Practicum class published in the *Journal of Orthopedic Trauma*. Another resident co-authored two papers, one published in the *International Journal of Environmental Research and Public Health*, and the other in *Criminal Justice and Behavior*. A resident who graduated in 2020 took the American Board of Preventive Medicine examination in the fall and passed. The program received continued accreditation by the Accreditation Council for Graduate Medical Education with no citations and commendation for our 100% 6-year board exam pass rate. We applied for and received 5-year funding from Health Resources and Services Administration (HRSA) to support two additional residents each year. These residents will be required to complete a primary care residency (Pediatrics, Family Medicine, or Internal Medicine) and will focus their training on maternal health.

Academic Honors/Awards:

- Appendix C provides a detailed reporting of the faculty, staff and student academic honors/awards for FY2021.

Clinical Service.

EPH has eight faculty providing clinical care services. Wendy Lane, MD, MPH, continued to provide medical evaluations and consultations for children with possible child abuse and neglect through the hospital Child

Protection Team and at the Howard County Child Advocacy Center. She ran several components of an annual full-day retreat to train pediatric interns to identify and treat children suspected of abuse and neglect. Dr. Lane became the Director of the CHAMP program (Child Abuse Medical Professionals), a statewide program to train and support health professionals throughout the state who provide care to children with suspected abuse and neglect. Also, she served as Medical Director and provided pediatric care at the Baltimore Child Abuse Center, an affiliate of Lifebridge Health.

Anthony Harris, MD, MPH, continued as an Associate Hospital Epidemiologist. Surbhi Leekha, MBBS, MPH, continued to serve as Medical Director of the UMMC Department of Infection Prevention and Hospital Epidemiology. Daniel Morgan, MD, MS, continued as the chief hospital epidemiologist for the Baltimore VA Medical Center and Mary-Claire Roghmann, MD MS, and Karen Coffey MD, MS were associate hospital epidemiologists for the VA Maryland Healthcare System. Jon Baghdadi, MD, PhD, was an Associate Hospital Epidemiologist and worked mainly at the UMMC-Midtown Campus. Drs. Leekha., Baghdadi and Thom had clinical attending responsibilities in infectious disease or internal medicine at the UMMC. Surbhi Leekha, MBBS, MPH, served as Hospital Epidemiology at the University of Maryland Medical Center Downtown and Midtown. Drs. Baghdadi and Harris served as Associate Hospital Epidemiologists. This was a busy year in light of COVID. Drs. Harris, Roghmann, Morgan and Coffey see infectious disease consults at the Baltimore VA. This group regularly worked extended shifts and provided ongoing advice to the administration, patients, and organizations outside the medial and university systems.

Community Outreach

Student Initiatives:

Community outreach continues to be highly valued by our department. The COVID-19 pandemic restricted our ability to participate in some of our usual annual service work but provided new opportunities for us to remain engaged. For instance, the MPH Program and the Beta Tau Chapter of Delta Omega co-sponsored a food drive through the Maryland Food Bank to help fight hunger in our community. There was a food drop location on campus and individuals could participate virtually. We yielded five bins of non-perishable food items and toiletries. And our virtual can drive netted >200% of our goal. MPH Students and faculty also hosted a mindfulness trivia session during National Public Health Week for the campus. This virtual session was designed to help participants learn about ways to reduce stress and practice mindfulness.

Additionally, the MPH Program continues its service-learning requirement for all students in their first term and it remains quite successful. Students were very engaged, and some committed more than the required minimum number of hours. That requirement served as a platform for structured engagement in service.

Faculty Initiatives:

Based on EPH faculty's ongoing involvement in both Covid-Related activities and the Program in Health Equity and Population Health it is estimated that 46% of our faculty are engaged in local outreach service. Appendix D contains a table of projects and communities served. Below are several projects that highlight EPH's service and policy initiatives in FY21.

B'more for Healthy Babies Upton/Druid Heights under the direction of Wendy Lane, MD, MPH is a place-based initiative to address high infant mortality rates in the Baltimore City communities of Upton/Druid Heights and Mondawmin. It is part of the Baltimore City Health Department's citywide initiative and is intended to examine whether the addition of high-intensity, community-level initiatives can improve birth outcomes beyond city-wide efforts. Evaluation has included using birth and death data from the Maryland VSA to examine community-level changes in pregnancy risk factors and birth outcomes. The 5-year average Infant mortality in Upton/Druid Heights dropped 75% since we started working there - from 15 deaths/1000 births in 2005-2009 to 3.8/1000 in 2014-18. This project is ongoing since 2010.

To address policy initiatives that stemmed from EPH, the Division of Genomic Epidemiology and Clinical Outcomes (GECO) under the leadership of Anthony Harris, MD, MPH played a critical role in developing policy that had implications affecting change at the local, state, and international level in the control and management

of COVID-19. Mary-Claire Roghmann, MD MS and colleagues tested a novel approach called Enhanced Barrier Precautions that prevents the spread of bacterial pathogens in nursing homes. These precautions focus on clinical characteristics rather than cultures to determine which residents need more frequent use of gowns and gloves for specific care activities. The CDC's Healthcare Infection Control Practices Advisory Committee (HICPAC) recently convened a workgroup (which included Dr. Roghmann) to evaluate Enhanced Barrier Precautions in nursing homes and published a policy white paper on its use.

Several faculty had roles in developing policies for the University in relation to Covid-19. Kate Tracy, PhD worked with the University System of Maryland advising the President on Covid-19 relevant policies for the system. Anthony Harris, MD, MPH, and Soren Bentzen, PhD, and Diane Marie St George, PhD, served on committees designed to make recommendations on campus and system policies pertaining to Covid-19 in relation to students, staff and faculty on campus.

On the international front, research conducted by Dr. Harris has led to changes in vaccination policy. In many countries experiencing vaccine shortages, Covid recovered patients received a single dose of vaccine which provided the necessary protection due to protective immunity and memory response. This dose reduction was critical during vaccine shortages. This research is published in [medRxiv](#) and [JAMA](#).

Administration

EPH administrative core is functioning at maximum capacity under the leadership of Cindy Geppi, MS. The APT Coordinator/Executive Assistant position was filled in June 2020, and the Marketing/Communications Specialist in winter 2020. Toward the end of the reporting period, our payroll coordinator (C. Todd) resigned, accepting an exempt position on campus, and the director of development (L. Jarman-Reisch) announced her retirement for the fall. An active recruitment for the payroll coordinator is underway. The position held by Ms. Jarman-Reisch is being redesigned; some duties may be reassigned to existing senior staff to allow for the position to devote more effort to fund-raising and networking.

In the coming year, we will also be recruiting at least two FTEs (business manager, accountant/analyst) to support our growing research portfolio including several large recently funded programs (Pepper Center renewal, CARDINAL U01, EpiCenter U01, M1/M3 R01 supplement, Merchenthaler R01s (2), and several large state contracts). We will also be taking proactive steps to retain several senior staff who are either being courted elsewhere on campus or at-risk for leaving the university entirely.

The department's PCA account is balanced and there are no outstanding effort reports for prior fiscal years. Timesheets for nearly 125 employees have been submitted and approved on a timely basis; effort reports are current. Laura Seipp closely directs payroll activities, and we are pleased to continue reducing the number of outlier payroll actions (eg. overpay, leave payout corrections, late pays, etc.). The department's payroll coordinator position which became vacant in Spring 2021, is critical to fill. Ms. Seipp is the sole person in the department who knows how to do payroll. As such, she has been unable to take any kind of extended time off and will be unable to until this position is hired and trained. We may be reaching out to the Dean's Office for short-term support.

The business and administrative staff continue to support the ongoing research and academic activities remotely and without interruption. Effort was devoted to finding ways to bring the larger EPH family together in this new virtual world. The department hosted several virtual celebrations, retirements, and COVID Updates over the year which enabled the wider EPH family to come together. At our 2021 Town Hall Meeting, we introduced *A Virtual Escape*, a monthly gathering of EPH faculty, staff, and students. We catch up, have a few laughs, and get that critically important break from the day-to-day monotony. Including the inaugural VE at our annual Town Hall Meeting, we hosted 5 virtual events which were well attended (10-20) by faculty and staff and many new introductions were made.

The EPH social media presence continued through Facebook and Twitter. LinkedIn, our newest social media platform, is being used to promote job and training opportunities. The department continued to publish *EPH Weekly*, a digest of accomplishments, events and announcements. *EPH Weekly* is also used to introduce new employees to the department; the interaction section was expanded to include brain teasers and puzzles, and the *In a Snap* photo section generates a lot of chatter. Readership has increased in the past year.

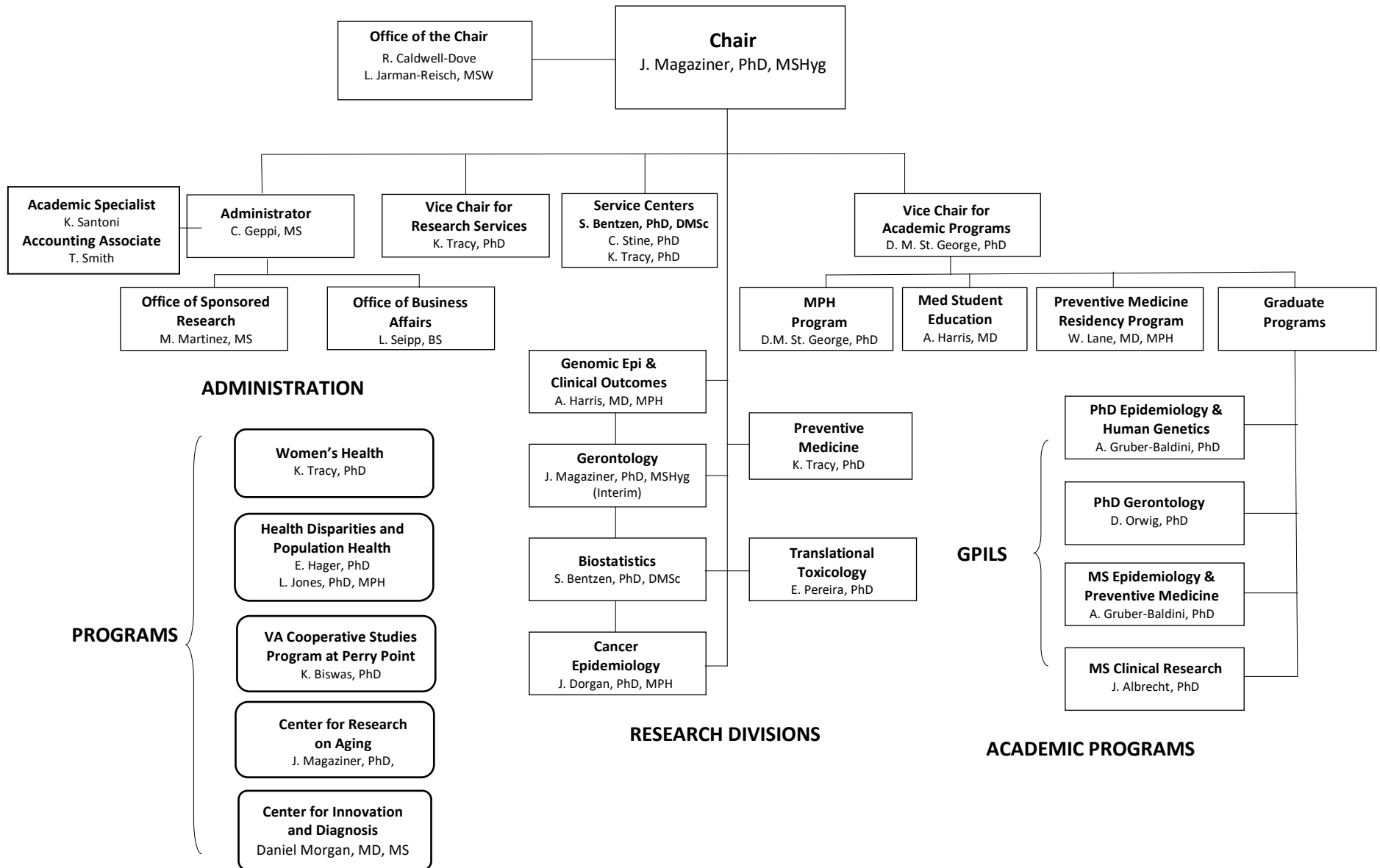
Finance: All state and revolving accounts balanced at year-end. Year-end balance in the DRIF account is \$675,000. Year-end balance in the IT/LAN account was \$245,000. With the exception of two modest cost centers in one account (IT/LAN) totaling ~\$50,000, funds will be used for cost share (~ \$380,000), a physician recruitment in infectious disease (\$100,000), an active recruitment of a gerontology division head (\$100,000), instructional design costs (\$25,000), our annual contract to the Department of Medicine for IT/desktop support (\$98,000), and to upgrade approximately a dozen desktop computers that are more than seven years old and out of service. We expect to use DRIF and LAN funds to cover operating costs associated with telework that cannot be absorbed by grants and contracts. The department incurred approximately \$15,000 in non-personnel COVID-related operating expenses.

All fee-for-service biostatistical support is billed through iLABs. The biostatistical fee is adjusted annually and now includes Drs. Chixiang (“Sam”) Chen, Michelle Shardell, Shuo Chen and John Sorkin in the denominator. These faculty with expertise in AI, machine learning, and mathematical modeling may be tapped to provide biostatistical service support to the wider SOM community.

Development: In FY2021, 11 solicitations totaling \$462,000 made to individuals and foundations resulted in: 1) a gift to establish the Edson X. Albuquerque Endowed Lecture in Translational Health Sciences; 2) the first planned gift to the Department of Epidemiology and Public Health, one of five gifts to the Preventive Medicine Residency Endowment; and 3) a gift to the EPH Unrestricted Fund from a new donor who will donate annually through his corporation’s matching gift program. In addition, \$100,000 in 2021 SOM Gala proceeds was secured for seed research projects by the Program in Health Equity and Population Health. Outstanding proposals anticipated to close in FY22 include a planned gift to the Langenberg Endowment in Epidemiology and Women’s Health, and a new endowment or operating fund established to support women’s health or career development in health equity research.

The Albuquerque Lecture in Translational Sciences is the 5th Endowment established in the Department of Epidemiology and Public Health. The inaugural lecture, “Carving the Genomic Landscape of Cholinergic Regulators,” was presented July 20, 2021 by Dr. Hermona Soreq, Alexander Silberman Institute of Life Sciences, Hebrew University of Jerusalem. The 7th Annual Renee Royak-Schaler Lecture in Health Equity, “The Impact of Unresolved Historical Trauma on Indigenous Health Equity,” was presented by Donald Warne, MD, MPH, on April 28, 2021.

Organizational Structure for Department of Epidemiology and Public Health



EPH Fiscal Year 2021 Publications

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**EPH Fiscal Year 2021 Academic Honors and Awards
for Faculty, Staff and Students**

2021 Faculty and Staff Honors and Awards

- **Kerri Thom, MD, MS**, Professor, was awarded the Medical School Teaching Award from the Department of Epidemiology and Public Health.
- **Jennifer Albrecht, PhD, Associate Professor**, was awarded the Epidemiology, Human Genetics, and Gerontology Faculty Mentoring Award.
- Sally Adebamowo was awarded the Master of Public Health Teaching and Mentoring Faculty Award.
- **Jessica P. Brown, PhD, Associate Professor**, was awarded the Epidemiology, Human Genetics, and Gerontology Faculty Teaching Award.
- **Wendy Lane, MD, MPH, Clinical Associate Professor**, appointed Director of the Maryland CHAMP program (CHild Abuse Medical Professionals), an MDH sponsored program that provides training and peer review to Maryland physicians and nurses who do clinical child abuse work.
- **Laundette Jones, PhD, MPH, Assistant Professor**, inductee into the Beta Tau Chapter of Delta Omega Honorary Society in Public Health.
- **Jonathon Baghdadi, MD, PhD, Assistant Professor**, Department of Epidemiology and Public Health, has been named a 2021 National Academy of Medicine (NAM) Scholar in Diagnostic Excellence.

2021 Student Honors and Awards

- Dorothy and Morris Magaziner Endowment Award was awarded to Rashmita Bajracharya and Nicole Viviano.
- Gerontology Early Career Development Award was awarded to Heather Mutchie, Gretchen Tucker, and Nicole Viviano.
- Langenberg Endowment in Epidemiology & Women's Health Award awardees: Matthew Adams, BS and Heather Mutchie, BA.
- Renee Royak-Schaler Memorial Endowment Awardees were awarded Eseosa Fernandes, MD, MPH and Heather Mutchie, BA.
- Master's in Public Health Student Recognition Award was awarded to Olga McKenzie.
- Shaikh Afaq and Stephanie Sanchez, were members of the winning UMB team for the DC Public Health Case Challenge at the National Academy of Medicine.
- Lahila-Carina Ojeda, MPH student and Preventive Medicine resident was selected as one of the National Delta Omega poster winners and presented her work at the American Public Health Association conference in November 2019.
- Lori Anderson was awarded the UMB Graduate Research Conference Best Poster Award and a Student Volunteer award for the Alzheimer's Association International Conference.
- Rashmita Bajracharya was awarded the Gerontology and Geriatrics Education and Research (GGEAR) Applied Science Best Poster Award at the 2021 UMB Graduate Research Conference.
- Jennifer Kirk was awarded the Victor E. and Dorothy M. McIntosh Outstanding Graduate Student Representative Award for the Meyerhoff Graduate Fellowship Program.
- Heather Mutchie was awarded the John's Hopkins University Aging Showcase 3rd Place Poster
- Shalini Sahoo earned the Adult Literacy and Adult Education SIG Exemplary Paper Award.
- Gretchen Tucker won 3rd place for her presentation at the Southern Gerontological Society Annual Conference and best student presentation by a doctoral or post-doctoral student.

Local Outreach Service Table

Project Name	Faculty Member	Community Served
B'more for Healthy Babies Upton/Druid Heights	Wendy Lane	Upton/Druid Heights & Mondawmin
Food Drive: Maryland Food Bank	Diane Marie St. George	MD Families
National Public Health Week	Diane Marie St. George	Baltimore City
Research analyzed risk factors for COVID-19 transmission in nursing homes	Mary-Claire Roghmann	Nursing homes communities
Transdisciplinary Research for Community and Social Impact	Laundette Jones	Baltimore City
The Research Program of the Maryland Center of Excellence on Problem Gambling	Kate Tracy	Maryland
Feasibility of Remote Home Support Coordinators to Decrease the Physical and Psychological Impact of Social Distancing on Older Adults	Denise Orwig	Baltimore County/City
Policies to Prevent Spread of COVID-19: Implications for Health Equity among Maryland Families of Preschool and School-Age Children	Erin Hager	Maryland
CDC working group on the nutrition response to COVID-19. Through this network, Dr. Hager has been able to highlight the important COVID-19 food insecurity work being done in Maryland.	Erin Hager	Maryland
UMB school-wide COVID-19 Recovery Task Force "Community focus area" subcommittee.	Laundette Jones	Baltimore City
Multicenter study examining changes in rates of hospitalizations and emergency department visits for child physical abuse in the wake of the COVID-19 pandemic,	Wendy Lane	Baltimore City
Developed all UMMS guidance related to protection of healthcare workers from SARS-CoV-2	Surbhi Leekha	Baltimore City
Provided clinical and epidemiologic expertise to develop an algorithmic approach to testing patients and employees for SARS-CoV-2 and other respiratory viruses.	Surbhi Leekha	Baltimore City
Guided the implementation of a comprehensive workplace contact tracing program as well as protocols for exposure risk assessment, quarantine, and testing, used by both UMMS and UMB	Surbhi Leekha	Baltimore City
Developed policies for infection prevention precautions at UMMS alternate care sites including guidance on layout, ventilation, and PPE	Surbhi Leekha	Baltimore City
Coordinated the linkage of UMMS clinical COVID-19 samples with SARS-CoV-2 sequencing efforts by UMB (IGS) helping the state of Maryland meet national requirements for SARS-CV-2 sequencing	Surbhi Leekha	Baltimore City
COVID-19 symptoms, patient contacts, PCR-positivity and seropositivity among healthcare personnel in a Maryland healthcare system.	Lyndsay O'Hara	Baltimore City
University System of Maryland COVID workgroup advising Chancellor Perman on return to campus strategies	Kate Tracy	Maryland
Member of the Towson University COVID Medical Advisory Committee	Kate Tracy	Towson
Clinical and Translational Research Informatics Center (CTRIC) is providing ongoing data capture and management support for UMB's occupational health monitoring for COVID-19.	Kate Tracy	Baltimore City
Project Director and Special Advisor to the Senior Vice Chancellor for Academic and Student Affairs of the USM for implementing COVID preventive measures (e.g., testing and symptom monitoring, vaccination, masking) for the University System of Maryland	Kate Tracy	Maryland