<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Degree</th>
<th>Abstract title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amy Raslevich</td>
<td>HPM</td>
<td>PhD</td>
<td>Disparities in Chronic Disease Management in a Large Medicaid Program, 2012-2017</td>
</tr>
<tr>
<td>Heather Tomko</td>
<td>HPM</td>
<td>MPH</td>
<td>Accessibility as a Public Health Issue: Pittsburgh’s Strengths and Areas of Improvement</td>
</tr>
<tr>
<td>Kiran Borkar</td>
<td>HPM</td>
<td>MPH</td>
<td>Exploring Social Determinants of Health Assessments and Community Relationships Among Western Pennsylvania Hospitals</td>
</tr>
<tr>
<td>Kirsten Eom</td>
<td>HPM</td>
<td>PhD</td>
<td>Examining the Association Between Primary Care Services Use and Colorectal Cancer Screening Among Non-Elderly Medicaid Enrolless in Pennsylvania</td>
</tr>
<tr>
<td>Mara Hollander</td>
<td>HPM</td>
<td>PhD</td>
<td>Changes in Medicaid Utilization and Spending Associated with Homeless Adults’ Entry into Permanent Supportive Housing</td>
</tr>
<tr>
<td>Morgan Benner</td>
<td>HPM</td>
<td>MPH</td>
<td>Development and Implementation of a Competency-Based Self-Assessment Tool for Epidemiology Staff at a Local Health Department</td>
</tr>
<tr>
<td>Morgan Benner</td>
<td>HPM</td>
<td>MPH</td>
<td>Training Needs Assessment at a Local Health Department</td>
</tr>
<tr>
<td>Noelle Cornelio</td>
<td>HPM</td>
<td>PhD</td>
<td>Trends in Asset Limits for Dual Medicaid Eligibility and Implications of Alternative Policy Options</td>
</tr>
<tr>
<td>Sih-Ting Cai</td>
<td>HPM</td>
<td>PhD</td>
<td>Changes in Medicare Coverage and Transplant Waitlist at Dialysis Facilities under Health Care Reform</td>
</tr>
<tr>
<td>Yitong (Alice) Gao</td>
<td>HPM</td>
<td>PhD</td>
<td>Racial Decomposition of Medication Treatment among Pregnant Women with Opioid Use Disorder</td>
</tr>
</tbody>
</table>
Disparities in Chronic Disease Management in a Large Medicaid Program, 2012-2017

Authors:
Amy Raslevich, MPP MBA¹; Marian Jarlenski, PhD, MPH¹,²; Natasha Parekh, MD, MS²,³; David Kelley, MD⁴

¹ University of Pittsburgh Department of Health Policy and Management;
² University of Pittsburgh Health Policy Institute;
³ University of Pittsburgh Division of General Internal Medicine;
⁴ Office of Medical Assistance Programs, Pennsylvania Department of Human Services

Corresponding Author: Please send all correspondence to Amy Raslevich:
Email address: amy.raslevich@pitt.edu
Address: Graduate School of Public Health, 130 DeSoto Street, 6th Floor, Pittsburgh, PA 15213

Abstract Word Count: 322
Disclosures: The authors do not report any potential conflicts of interest.
Abstract

Background: Racial and ethnic minorities continue to bear a disproportionate burden of morbidity and mortality from chronic disease. Identifying and eliminating disparities are priorities for state Medicaid programs. While prior research has suggested that Medicaid expansion increased insurance coverage for racial minority populations, little is known about whether Medicaid expansion helped to ameliorate disparities in chronic disease management outcomes.

Objective: To assess temporal changes in hypertension and diabetes control before and after Pennsylvania Medicaid expansion, and to analyze racial disparities in these outcomes before and after Medicaid expansion.


Participants: Representative sample of adults in the Pennsylvania Medicaid managed care program continuously enrolled in the survey year.

Main Measures: Four Healthcare Effectiveness Data and Information Set (HEDIS®) utilization measures: 1) blood pressure control for hypertensive patients; 2) diabetic blood pressure control; 3) hemoglobin A1c>9; and 4) hemoglobin A1c<7.

Key Results: While A1c<7 levels were unchanged between 2012-2017 in the adult Pennsylvania Medicaid population, A1c>9 levels improved by 12%, diabetic blood pressure control by 17%, and blood pressure control for hypertensive patients by 23% by 2017, two years post-expansion. No racial disparities in A1c<7 levels were found between 2012-2017, but large disparities between black and white patients persisted at the same levels across all years for all other measures of chronic disease management studied. Black patients with diabetes had a 5 percentage point (95% CI: 3.2%, 6.1%) lower probability of having A1c<9 and had a 10 percentage point (95% CI: -11.0%, -8.2%) lower probability of having good blood pressure control. Black patients with hypertension had an 8 percentage point (95% CI: -9.9%, -6.4%) lower probability of having blood pressure control than white patients.

Conclusions: Despite overall improvements in three of four measures of chronic disease management in the Pennsylvania adult Medicaid population since the 2015 expansion, there have been no reductions in the black-white racial disparities. Black patients in the state continue to fare significantly worse compared to similar white patients in measures of diabetes and hypertension management.
Heather Tomko, HPM

Accessibility as a Public Health Issue – Pittsburgh’s Strengths and Areas of Improvement

Housing, transportation access, community walkability, sidewalk conditions – these issues are all tightly tied to social determinants of health, and also are all issues relevant to the disability community and accessibility. Yet, as a historically underrepresented group, the needs of those with disabilities are often not considered in relation to these issues, which are not typically considered to be “disability issues.” Accessible YOUniverse, in partnership with The Dane Foundation, hosted a day-long workshop-style Summit where participants discussed Pittsburgh’s strengths and weaknesses in five specific areas – physical spaces, digital spaces, policy, transportation, and overall culture of inclusion. At the end of the day, participants identified transportation, and specifically sidewalk conditions, as the number 1 priority to be addressed to increase accessibility in the city.
Exploring Social Determinants of Health Assessments and Community Relationships Among Western Pennsylvania Hospitals

In 2016, the United States Department of Health and Human Services released the Public Health 3.0 initiative in order to combat preventable health problems in the 21st century. Unlike previous models, Public Health 3.0 encourages communities to leverage cross-sector relationships and social determinants of health - such as housing, transportation, and nutrition - to improve population health outcomes and reduce disparities. While traditional health systems have not concentrated on social determinants, many have launched interventions to assess broader health factors. However, there is limited research on these interventions and what data hospital systems collect. The current study, therefore, uses a mixed-methods approach to explore social needs assessments and community partnerships in Western Pennsylvania hospitals. An online survey (via Qualtrics) was sent to Chief Nursing Officers at regional hospitals. The survey focused on nine determinants of health, such as transportation, education, and interpersonal violence. Based off of survey responses, follow-up interviews were completed to examine relationships between hospitals and community organizations that connect patients to essential services. Results from 17 respondents displayed that the majority of hospitals have social determinants screenings as part of standard or needs-based procedures. Interviews further indicated that of hospitals referring patients to community services, most have collaborative interventions with organizations that incorporate social determinants of health. Many hospitals, however, do not track outcomes once patients access community services. Future studies should research barriers hospitals encounter when tracking patients, and if health outcomes improve once patients gain social needs services.

Key words: social determinants of health, hospitals, social needs, community organizations
EXAMINING THE ASSOCIATION BETWEEN PRIMARY CARE SERVICES USE AND COLORECTAL CANCER SCREENING AMONG NON-ELDERLY MEDICAID ENROLLEES IN PENNSYLVANIA

Kirsten Y. Eom MPH¹, Marian P Jarlenski PhD MPH¹, Scott Rothenberger PhD², Robert E Schoen MD MPH³, and Lindsay M Sabik PhD¹

1 Department of Health Policy and Management, University of Pittsburgh Graduate School of Public Health
2 Division of General Internal Medicine, University of Pittsburgh Department of Medicine
3 Division of Gastroenterology, Hepatology and Nutrition, University of Pittsburgh Department of Medicine

Background Colorectal cancer (CRC) diagnosis have become important issues for Medicaid programs given the average age of non-dual enrollees increased under the Affordable Care Act (ACA). However, little is known about CRC screening services utilization in Medicaid populations. Also, primary care (PC) providers play a critical role in CRC screening services use, and recent changes in Medicaid coverage under the ACA have improved access to care and health care utilization. Thus, this paper examines the association between PC services use and CRC screening among non-elderly Medicaid enrollees in Pennsylvania.

Methods We use Pennsylvania Medicaid claims data (2015-2017). Study population includes full-benefit Medicaid beneficiaries aged 50-64 years not dually enrolled in Medicare at any time in a given year. Primary outcome measures whether an enrollee ever had any CRC screening services while enrolled in Medicaid. We calculate and compare demographic characteristics and CRC screening use rates over the study period.

Results From 2015 to 2017, 11% of 665,749 enrollees had any CRC screening; the most common modality is standard colonoscopy. About 36% of study population is 50-54 years old. 45% of study population is male, and 56% is non-Hispanic White. Top three common procedures among those had no CRC screening services in 2015 are ED visits, all-inclusive clinic visits, and hematology lab procedures; all-inclusive clinic visits, hematology lab procedures, and colonoscopy among those had CRC screening services.

Public Health Significance Findings will provide policymakers and other stakeholders with evidence to develop Medicaid interventions to improve CRC screening in PC settings.
Mara Hollander - HPM

Changes in Medicaid Utilization and Spending Associated with Homeless Adults’ Entry into Permanent Supportive Housing

Research Objective: As states continue to explore ways to best address social determinants of health, there is growing interest in expanding housing and supportive services for homeless individuals. Permanent Supportive Housing (PSH) integrates non time-limited housing assistance with tenancy transition, medical, and social support services. Decisions to expand funding for PSH will likely hinge on evidence that states can realize cost savings if recipients are better able to manage their health conditions when stably housed. However, a review by the National Academies of Science, Engineering, and Medicine concluded that there is limited generalizable evidence on the long-term cost-savings associated with PSH. We evaluated long-term changes in utilization and spending associated with the receipt of PSH among formerly homeless Medicaid recipients in Pennsylvania. We address limitations of prior research by studying a large cohort of PSH recipients linked to administrative Medicaid enrollment and claims data and examining outcomes up to three years after individuals enter PSH.

Study Design: We linked Homeless Management Information System (HMIS) data from 54 of Pennsylvania’s 67 counties (not including Philadelphia) at the person level to Medicaid enrollment and claims. We identified a cohort of adult Medicaid enrollees who entered PSH between 2011 and 2016 and assessed changes in their healthcare expenditures and utilization from up to 15 months before to three years following PSH entry. We compared these changes to trends in a propensity score matched cohort of adults experiencing housing instability who did not receive PSH using a differences-in-differences analysis.

Population Studied: 1,226 adults enrolled in both PSH and Pennsylvania Medicaid during the period 2011-2017, matched to 970 adult Medicaid enrollees who used at least one non-PSH homelessness service (e.g. emergency shelter, transitional housing) during that period.

Principal Findings: Three years after PSH entry, spending decreased by an average of $145/month in the PSH cohort relative to changes in the comparison cohort (p=0.046), with the greatest relative spending reductions occurring for residential behavioral health ($64, p<.001), community behavioral health ($40, p=.015), and inpatient non-behavioral health services ($89, p=.001). Consistent with these spending declines, we found relative reductions in ED use (4.7 visits/100 person-months, p=.010) inpatient hospital stays (1.6 visits/100 person-months, p<.001) in the PSH vs. comparison groups after 3 years.

Conclusions: PSH is associated with changes in both behavioral health and physical health spending that are consistent with better management of chronic conditions through increases in outpatient care.

Implications for Policy or Practice: A substantial body of research shows that homelessness contributes to poor health and high health care costs which disproportionately accrue to Medicaid. These results can inform emerging state efforts to finance PSH services. Our estimates suggest that the additional state costs to expand financing to certain PSH services could be partially offset by long-term savings to Medicaid when recipients are stably housed, and may shift treatment to outpatient as opposed to acute care settings.
Development and implementation of a competency-based self-assessment tool for epidemiology staff at a local health department

Morgan Benner, HPM, 2020

**Background:** Maintaining a skilled and qualified workforce is vital to the delivery of effective and relevant public health programs. In 2014, the Allegheny County Health Department (ACHD) modified the Public Health Foundation’s core competency assessment tool to better reflect its programs and services and establish a baseline for training needs. A follow-up assessment was completed in 2018; marked improvement in was evident across all domains. Significant organizational restructuring ACHD began in 2013. Five bureaus were established and reflected in the baseline assessment; four of them remain mostly the same in size, staffing, and breadth of services. Due to increased grant funding and changing public health priorities, the Bureau of Assessment, Statistics, and Epidemiology (BASE) has grown significantly both in number of employees and scope of work. As a result, the data collected during the 2018 re-assessment could not be used to accurately measure changes in core competencies within this bureau. In addition, almost half of the current staff in BASE are contracted employees and were not captured in the 2018 assessment. An accurate measurement of core competencies for BASE was not attainable from this data.

**Methods:** The Core Competencies for Public Health Professionals and the Competencies for Applied Epidemiologists in Governmental Public Health Agencies were reviewed through an iterative process to identify priority competencies for BASE. These competencies were then compared to priority areas identified by a strategic planning meeting to develop a set of 26 competencies. Utilizing the tiered structure of the Core Competencies, three self-assessment tools were created as well as a Tier 1 assessment of the bureau’s overall competencies. Staff completed the assessment corresponding to their tier, which was identified using current job descriptions. They also completed an assessment of the bureau’s overall competencies.

**Results:** Competency gaps for all BASE staff were identified in Domain 2 (Policy Development/Program Planning Skills). Additionally, gaps were identified in Domain 1 (Analytical/Assessment Skills) for staff in Tier 1 and Domains 5 and 8 (Community Dimensions of Practice and Leadership and Systems Thinking Skills, respectively) for staff in Tier 1. These results can be used to inform both short and long-term training plans for BASE.
Training Needs Assessment at a Local Health Department
Morgan Benner, HPM, 2020

**Background:** Maintaining a skilled and qualified workforce is vital to the delivery of effective and relevant public health programs. As public health priorities change, the workforce must be able to adapt to meet the needs of the populations they serve. The Allegheny County Health Department (ACHD) consists of five bureaus and a public health laboratory and became a nationally accredited public health department in 2017. ACHD uses core competency assessments and training needs assessments to develop their workforce development plan.

**Methods:** The 2019 training needs assessment was conducted through qualitative interviews with key administrators in all five bureaus over a three-month period. Results from the 2018 Core Competency Assessment as well as the 2017 Training needs Assessment were used to develop the interview questions. Topics covered in the interview included: program goals, priority skill areas, barriers to training, and preferred times for holding trainings. The results of the needs assessment were compared to the 2018 Core Competency Assessment and 2017 Training Needs Assessment to develop focus areas.

**Results:** Overall, 52 unique trainings were identified which covered six competency domains and 34 unique competencies. Trainings in the Communications, Financial Planning and Management, and Leadership and Systems Thinking Skill domains were identified as priorities for all Allegheny County Health Department staff.
**Abstract Text:**

**Research Objective:** Approximately 8.7 million low-income Medicare beneficiaries are dually enrolled in full Medicaid, which covers Medicare’s out-of-pocket costs and additional benefits for individuals who meet their state’s income and asset limits. In most states, Medicaid income eligibility is based on federal poverty guidelines, which increase with inflation, while asset limits have remained constant since 1989. Therefore, the asset test has become more restrictive over time, potentially excluding low-income Medicare beneficiaries from Medicaid because their resources are higher in nominal – but not real – terms. The first objective of this research is to examine variation in Medicaid income and asset limits in all states from 2006-2018. Since many states have not increased asset limits for 30 years, the second objective is to estimate the increase in the number of aged Medicare beneficiaries who would qualify for full Medicaid under higher asset limits, conditional on meeting income eligibility criteria.

**Study Design:** Income and asset threshold data for each state were obtained via interviews with state Medicaid program officials, published reports, and state websites; these data were used to assess changes in policy from 2006-2018. These state-level data were then merged to restricted use data from the 2016 wave of the Health and Retirement Study (HRS), a longitudinal, nationally representative survey of US adults over age 50 containing detailed information on respondents’ incomes and assets. We first assessed the number of senior Medicare beneficiaries who met the Medicaid income limit but exceeded the asset limit. We then simulated the number who would be eligible for Medicaid under two alternative policy scenarios: 1) if assets were inflated annually starting in 1989 by the Consumer Price Index (CPI), and 2) if asset limits were set equal to the Medicare Savings Programs (MSP) and Low-Income Subsidy (LIS) asset limits.

**Population Studied:** Community-dwelling individuals 65 years or older enrolled in Medicare. We excluded individuals who resided in or had a spouse residing in a nursing home, given differing state-specific Medicaid eligibility rules for nursing home residents. We included one person per household by selecting HRS financial respondents.

**Principal Findings:** As of 2018, 11 states increased asset limits for full Medicaid past the 1989 levels, and 6 states increased asset limits between 2006 and 2018. There would be a 5% relative increase in the number of low-income seniors eligible for Medicaid if the asset test was inflated annually by
CPI in states that did not increase their asset limits to levels above the alternative scenario. There would be a 7% relative increase in eligibility if asset limits were increased to the MSP/LIS limit.

**Conclusions:** Many Medicare beneficiaries who meet Medicaid’s income eligibility criteria may be excluded from the program because most states have held Medicaid’s asset test constant, in nominal terms, over the last 30 years.

**Implications for Policy or Practice:** Removing or increasing asset limits may not only reduce the administrative burden on state Medicaid programs, but would extend full Medicaid eligibility to a larger number of low-income Medicare beneficiaries. Findings can inform future policy, research, and programs to promote access to care in low-income and aging populations.
Changes in Medicare Coverage and Transplant Wait Lists at Dialysis Facilities under Health Care Reform
Sih-Ting Cai & Coleman Drake

1. Sih-Ting Cai (sihting.cai@pitt.edu) is a doctoral student at the University of Pittsburgh Graduate School of Public Health in the Department of Health Policy and Management.
2. Coleman Drake is an Assistant Professor at the University of Pittsburgh Graduate School of Public Health.

Acknowledgments: This was unfunded research.

Research Objective: Although individuals with end-stage renal disease (ESRD) are entitled to full Medicare benefits, this population generally receives unsatisfactory health outcomes at tremendous cost. Dialysis clinics that treat patients with ESRD are increasingly dominated by for-profit providers. Yet, it remains unclear how dialysis clinics have responded to the financial incentives created by the ESRD Medicare Prospective Payment System (PPS) and the Affordable Care Act (ACA). Our research objectives were to examine whether for-profit dialysis clinics shifted patients from Medicare to private health plans in response to the implementation of the PPS system ACA, and, if so, to determine whether this change was associated with changes in the quality of care as represented by access to transplants.

Study Design: We obtained data on dialysis clinics from the Centers for Medicare and Medicaid Services’ 2008-2015 Dialysis Facility Reports. We used descriptive statistics to examine changes in the proportion of Medicare patients and the percentage of transplant-eligible patients that were waitlisted at each dialysis clinic over time. We stratified our analyses according by for- and non-profit ownership of dialysis clinics.


Principal Findings: We observed a growing reduction over time in patients on dialysis who were ESRD Medicare beneficiaries. For-profit facilities experienced a 19% decline in patients on dialysis during the study period, compared to a 10% in non-profit facilities, on average. Nearly 92% of dialysis facilities had a high level of ESRD Medicare patients at baseline, while the figure dropped to 44% after the ACA took effect in 2014. The regression estimates suggest that a 15-percentage point decrease in ESRD Medicare beneficiaries in dialysis facilities in the post-PPS and ACA period, and there was a significant and negative association between ESRD Medicare enrollment and for-profit facilities.

Conclusion: The declines in the proportion of Medicare patients among dialysis facilities are strongly associated with changes in financial incentives created by the PPS and the ACA. The dialysis market has become increasingly consolidated over the past decade, and two major for-profit companies now are providing services to the majority of individuals with ESRD. Investigating how dialysis providers respond to financial incentives created by recent policy
changes and whether they lead to poor care quality is crucial for not only controlling health care costs, but also improving health outcomes.

**Implications for Policy or Practice:** Given ESRD patients’ comorbidity burden and changes in dialysis market structure, the declines in the quality of care will likely have a negative impact on this high-need, high-cost population. These results could be used to inform the ongoing “Advancing American Kidney Health Initiative” directed by the Department of Health and Human Services for cost containment and health improvement.
Objectives: Little is known about racial disparities in receipt of medications for opioid use disorder (MOUD) for pregnant women with opioid use disorder (OUD) during pregnancy and the postpartum period. We sought to quantify these disparities and identify the contribution of several individual, healthcare system, and environmental factors to these disparities among pregnant women with OUD enrolled in Medicaid.

Methods: The study included women enrolled in Pennsylvania Medicaid between the ages of 15-44 years who had a live birth from January 1, 2011-September 30, 2017 and a diagnosis of OUD during pregnancy. The outcomes were defined as any MOUD receipt during pregnancy and any MOUD receipt in the twelve weeks after delivery. Nonlinear decomposition was used to examine the influence of individual, healthcare system, and environmental factors in explaining the racial and ethnic disparity in MOUD use during pregnancy and the postpartum period.

Results: Nonwhite women were significantly less likely to receive MOUD during pregnancy and postpartum, as white women had a higher average predicted probability of MOUD receipt during pregnancy. Differences in covariates explained 15.8% of the overall MOUD disparity by race during pregnancy and 68.9% of the MOUD gap during postpartum. The number of days between an OUD diagnosis and delivery (112.0%), diagnosis of HCV (29.4%), and environmental factors such as urbanicity of the county of residence (-28.1%) and percent living in poverty (-52.0%) contributed the most to explaining the racial disparity in MOUD during pregnancy. Any MOUD receipt during pregnancy was the largest contributor (118.7%) to the racial disparity in MOUD receipt postpartum.

Conclusion: Healthcare system and environmental factors are critical to our understanding of racial and ethnic disparities in opioid use disorder treatment for pregnant women. Future policy considerations and intervention designs to eliminate this disparity should address these factors.