

George “Mark” Holmes

February 28, 2024

Cecil G. Sheps Center for Health Services Research University of North Carolina 725 Martin Luther King Boulevard, CB #7590 Chapel Hill, NC 27599-7590 Voice: (919) 966-7101 Fax: (919) 966-1634 Email: mark_holmes@unc.edu	Department of Health Policy and Management UNC Gillings School of Global Public Health 1104 McGavran-Greenberg, CB #7411 Chapel Hill, NC 27599-7411 Voice: 919-966-1701
---	--

Education

2000 Ph.D. in Economics, University of North Carolina at Chapel Hill
1995 B.S. in Mathematics, Michigan State University
Additional Major in Economics

Professional Experience

2016– present Director
Cecil G. Sheps Center for Health Services Research

2018– present Professor, Department of Health Policy and Management,
UNC Gillings School of Global Public Health
(Associate Professor, 2013-2017, Assistant Professor 2010–2013, Adjunct Assistant Professor 2008–2010)

2013– 2016 Associate Chair for Research, Department of Health Policy and Management

2010– present Director
NC Rural Health Research and Policy Analysis Center

2008– 2019 Program Co-Director, Program on Healthcare Economics and Finance,
Cecil G. Sheps Center for Health Services Research

2006– present Senior Research Fellow, Cecil G. Sheps Center for Health Services Research
University of North Carolina at Chapel Hill
(1999–2006, Research Fellow)

2005–2010 Vice President
North Carolina Institute of Medicine

2004–2010 Research Associate
University of North Carolina at Chapel Hill

2000– 2003 Assistant Professor, East Carolina University
Department of Economics

1999 Instructor, East Carolina University
Department of Economics

Honors

2017	2016 <i>Journal of Rural Health</i> Article of the Year (Kaufman et al, Rising Rate of Rural Health Closures)
2015	National Rural Health Association Outstanding Researcher Award
2014	Phillip and Ruth Hettleman Prize for Artistic and Scholarly Achievement by Young Faculty
2012	<i>Triangle Business Journal</i> 40 Under 40 Leadership Award
2012	Member, North Carolina Institute of Medicine
2010	UNC Star Heels Award
2010	<i>Triangle Business Journal</i> Health Care Heroes “Rising Star”
2007	NIH Loan Repayment Program for Health Disparities Research National Institute on Minority Health and Health Disparities
2006	UNC Employee Forum, Employee Peer Recognition Program nominee
2001	East Carolina University College of Arts and Sciences Research Award
1998-1999	National Research Service Award Pre-Doctoral Fellowship Agency for Health Care Policy and Research
1995	Graduated cum laude from Honors College, Michigan State University
1994	Phi Beta Kappa
1994	Omicron Delta Epsilon, International Honors Society in Economics
1991	Distinguished Freshman Scholarship, Michigan State University

RESEARCH

Publications

Books and Chapters

1. **Holmes GM**, DeSimone JS, Rupp NG. Does School Choice Increase School Quality?: Evidence from North Carolina Charter Schools. *Advances in Microeconomics*, vol 14, Pages 131-155.

Refereed articles (* denotes student)

1. Adhikari* M, Hawes E, Sanner L, **Holmes GM**. <https://www.ncbi.nlm.nih.gov/pubmed/38060405/> Acad Med. 2023 Dec 7;. doi: 10.1097/ACM.0000000000005589. [Epub ahead of print] PubMed PMID: 38060405.
2. Maini L, Klimek JP*, Johnson DC, **Holmes GM**, DeWalt DA. <https://www.ncbi.nlm.nih.gov/pubmed/37948645/> Am J Manag Care. 2023 Nov;29(11):579-584. doi: 10.37765/ajmc.2023.89454. PubMed PMID: 37948645.
3. Rains J*, Pathak S, **Holmes GM**, Hawes EM. The Distribution of New Graduate Medical Education Slots in 2023. *JAMA*. 2023 Sep 12;330(10):968-969. doi: 10.1001/jama.2023.14452. PubMed PMID: 37556174; PubMed Central PMCID: PMC10413210.
4. Reiter KL, Gurzenda S, Thompson K, **Holmes GM**, Pink GH. Supporting Critical Access Hospital operational and financial improvement through the Medicare Rural Hospital Flexibility Program. *J Rural Health*. 2023 Apr 21;. doi: 10.1111/jrh.12762. [Epub ahead of print] PubMed PMID: 37085885.
5. Fraher E, Page CP, Hawes EM, Galloway E, Pathak S, Tomola L, **Holmes GM**. Bolstering the rural physician workforce in underserved communities: Are Rural Residency Planning and Development Programs finding the sweet spot?. *J Rural Health*. 2022 Dec 25;. doi: 10.1111/jrh.12735. [Epub ahead of print] PubMed PMID: 36566476.
6. Friedman HR*, **Holmes GM**. Rural Medicare beneficiaries are increasingly likely to be admitted to urban hospitals. *Health Serv Res*. 2022 Oct;57(5):1029-1034. doi: 10.1111/1475-6773.14017. Epub 2022 Jul 13. PubMed PMID: 35773787; PubMed Central PMCID: PMC9441274.
7. Hawes EM, **Holmes M**, Fraher EP, Zamierowski A, Pauwels J, Sanner LA, Rains J,* Page CP. New Opportunities for Expanding Rural Graduate Medical Education to Improve Rural Health Outcomes: Implications of the Consolidated Appropriations Act of 2021. *Acad Med*. 2022 Sep 1;97(9):1259-1263. doi: 10.1097/ACM.0000000000004797. Epub 2022 Jun 8. PubMed PMID: 35767355.

8. Herb J, **Holmes M**, Stitzenberg K. Trends in rural-urban disparities among surgical specialties treating cancer, 2004-2017. *J Rural Health*. 2022 Sep;38(4):838-844. doi: 10.1111/jrh.12658. Epub 2022 Mar 14. PubMed PMID: 35288990.
9. Zhu Y*, Stearns SC, **Holmes GM**. The contributions of survey-based versus administrative measures of socioeconomic status in predicting type of post-acute care for hospitalized Medicare beneficiaries. *J Eval Clin Pract*. 2022 Aug;28(4):569-580. doi: 10.1111/jep.13647. Epub 2021 Dec 23. PubMed PMID: 34940987.
10. Herb J, Kuo TM, Kumar V, Wu B, **Holmes M**, Lund J, Reeder-Hayes K, Baggett C, Weiner A, Mody G, Stitzenberg K. Temporal Changes in Treatment Patterns for Rural and Urban Patients With Early-Stage Non-Small Cell Lung Cancer. *N C Med J*. 2022 Jul-Aug;83(4):294-303. doi: 10.18043/ncm.83.4.294. PubMed PMID: 35817447.
11. Miller KEM, Van Houtven CH, Kent EE, Gilleskie D, **Holmes GM**, Smith VA, Stearns SC. Short-term effects of comprehensive caregiver supports on caregiver outcomes. *Health Serv Res*. 2022 Jul 18;. doi: 10.1111/1475-6773.14038. [Epub ahead of print] PubMed PMID: 35848763.
12. Malone TL*, Planey AM, Bozovich LB*, Thompson KW, **Holmes GM**. The economic effects of rural hospital closures. *Health Serv Res*. 2022 Jun;57(3):614-623. doi: 10.1111/1475-6773.13965. Epub 2022 Mar 21. PubMed PMID: 35312187; PubMed Central PMCID: PMC9108064.
13. Miller KEM*, Stearns SC, VAN Houtven CH, Gilleskie D, **Holmes GM**, Kent EE. The Landscape of State Policies Supporting Family Caregivers as Aligned With the National Academy of Medicine Recommendations. *Milbank Q*. 2022 May 17;. doi: 10.1111/1468-0009.12567. [Epub ahead of print] PubMed PMID: 35579187.
14. Khushalani JS, **Holmes M**, Song S, Arifkhanova A, Randolph R, Thomas S*, Hall DM. Impact of rural hospital closures on hospitalizations and associated outcomes for ambulatory and emergency care sensitive conditions. *J Rural Health*. 2022 May 5;. doi: 10.1111/jrh.12671. [Epub ahead of print] PubMed PMID: 35513356.
15. Zhu Y,* Stearns SC, Holmes GM. The contributions of survey-based versus administrative measures of socioeconomic status in predicting type of post-acute care for hospitalized Medicare beneficiaries. *J Eval Clin Pract*. 2021 Dec 23;. doi: 10.1111/jep.13647. [Epub ahead of print] PubMed PMID: 34940987.
16. Miller KEM*, Miller KL, Knocke K*, Pink GH, **Holmes GM**, Kaufman BG. Access to outpatient services in rural communities changes after hospital closure. *Health Serv Res*. 2021 Oct;56(5):788-801. doi: 10.1111/1475-6773.13694. Epub 2021 Jun 25. PubMed PMID: 34173227; PubMed Central PMCID: PMC8522564.
17. Long JC*, Delamater PL, **Holmes GM**. Which Definition of Rurality Should I Use?: The Relative Performance of 8 Federal Rural Definitions in Identifying Rural-Urban Disparities. *Med Care*. 2021 Oct 1;59(Suppl 5):S413-S419. doi: 10.1097/MLR.0000000000001612. PubMed PMID: 34524237; PubMed Central PMCID: PMC8428861.
18. Royce TJ, Jones GP, Muraildhar V, Chowhary M, **Holmes GM**. Trends in Number of United States Primary Care Trainees and Physician Incomes 2001-2019. *J Grad Med Educ*. 2021 Jun;13(3):385-389. doi: 10.4300/JGME-D-20-00941.1. Epub 2021 Jun 14. PubMed PMID: 34178264; PubMed Central PMCID: PMC8207908.
19. Page CP, Chetwynd E, Zolotor AJ, **Holmes GM**, Hawes EM. Building the Clinical and Business Case for Opening Maternity Care Units in Critical Access Hospitals. *NEJM Catalyst Innovations in Care Delivery* 2021; 05 DOI:https://doi.org/10.1056/CAT.21.0027
20. Williams D Jr*, Reiter KL, Pink GH, **Holmes GM**, Song PH. Rural Hospital Mergers Increased Between 2005 and 2016-What Did Those Hospitals Look Like? *Inquiry*. 2020 Jan-Dec;57:46958020935666. doi: 10.1177/0046958020935666. PMID: 32684072
21. Williams D Jr*, **Holmes GM**, Song PH, Reiter KL, Pink GH. <https://www.ncbi.nlm.nih.gov/pubmed/32583906/> *J Rural Health*. 2020 Jun 25;. doi: 10.1111/jrh.

22. Malone TL*, Pink GH, **Holmes GM**. Decline in Inpatient Volume at Rural Hospitals. *J Rural Health*. 2021 Mar;37(2):347-352. doi: 10.1111/jrh.12553. Epub 2020 Dec 31. PubMed PMID: 33382499.
23. Herb J, Wolff R, McDaniel P, **Holmes M**, Lund J, Stitzenberg K. Rural representation of the surveillance, epidemiology, and end results database. *Cancer Causes Control*. 2021 Mar;32(3):211-220. doi: 10.1007/s10552-020-01375-0. Epub 2021 Jan 3. PubMed PMID: 33392903.
24. Herb JN, Wolff RT, McDaniel PM, **Holmes GM**, Royce TJ, Stitzenberg KB. Travel Time to Radiation Oncology Facilities in the United States and the Influence of Certificate of Need Policies. *Int J Radiat Oncol Biol Phys*. 2021 Feb 1;109(2):344-351. doi: 10.1016/j.ijrobp.2020.08.059. Epub 2020 Sep 4. PubMed PMID: 32891795.
25. Kaufman BG, Whitaker R, Pink G, **Holmes GM**. Half of Rural Residents at High Risk of Serious Illness Due to COVID-19, Creating Stress on Rural Hospitals. *J Rural Health*. 2020 Sep;36(4):584-590. doi: 10.1111/jrh.12481. Epub 2020 Jun 30. PubMed PMID: 32603030; PubMed Central PMCID: PMC7361543.
26. Wolfe MK*, McDonald NC, **Holmes GM**. <https://www.ncbi.nlm.nih.gov/pubmed/32298170/> *Am J Public Health*. 2020 Jun;110(6):815-822. doi: 10.2105/AJPH.2020.305579. Epub 2020 Apr 16. PubMed PMID: 32298170.
27. Williams D Jr*, Pink GH, Song PH, Reiter KL, **Holmes GM**. Capital Expenditures Increased at Rural Hospitals That Merged Between 2012 and 2015. *J Healthc Manag*. 2020 Sep-Oct;65(5):346-364. doi: 10.1097/JHM-D-19-00219. PubMed PMID: 32925534.
28. Miller KEM*, James HJ*, **Holmes GM**, Van Houtven CH. <https://pubmed.ncbi.nlm.nih.gov/31989591/> *Health Serv Res*. 2020 Apr;55(2):288-300. doi: 10.1111/1475-6773.13254. Epub 2020 Jan 27. PubMed PMID: 31989591; PubMed Central PMCID: PMC7080401.
29. Kaufman BG, O'Brien EC, Stearns SC, Matsouaka R, **Holmes GM**, Weinberger M, Song PH, Schwamm LH, Smith EE, Fonarow GC, Xian Y. <https://www.ncbi.nlm.nih.gov/pubmed/31452032/> *J Gen Intern Med*. 2019 Aug 26;. doi: 10.1007/s11606-019-05283-1. [Epub ahead of print] PubMed PMID: 31452032.
30. Hoffman AF*, Pink GH, Kirk DA, Randolph RK, **Holmes GM**. What Characteristics Influence Whether Rural Beneficiaries Receiving Care From Urban Hospitals Return Home for Skilled Nursing Care?. *J Rural Health*. 2019 Apr 5;. doi: 10.1111/jrh.12365. [Epub ahead of print] PubMed PMID: 30951228.
31. Kaufman BG*, O'Brien EC, Stearns SC, Matsouaka RA, **Holmes GM**, Weinberger M, Schwamm LH, Smith EE, Fonarow GC, Xian Y, Taylor DH Jr. Medicare Shared Savings ACOs and Hospice Care for Ischemic Stroke Patients. *J Am Geriatr Soc*. 2019 Mar 5;. doi: 10.1111/jgs.15852. [Epub ahead of print] PubMed PMID: 30835818.
32. **Holmes GM**, Thomas SR. What Should Be the Scope of a Health Network's Obligation to Respond After a Hospital Closure?. *AMA J Ethics*. 2019 Mar 1;21(3):E215-222. doi: 10.1001/amajethics.2019.215. PubMed PMID: 30893034.
33. James HJ*, Steiner MJ, **Holmes GM**, Stephens JR. The Association of Discharge Before Noon and Length of Stay in Hospitalized Pediatric Patients. *J Hosp Med*. 2019 Jan;14(1):28-32. doi: 10.12788/jhm.3111. PubMed PMID: 30667408.
34. Spencer JC*, Wheeler SB, Rotter JS*, **Holmes GM**. Decomposing Mortality Disparities in Urban and Rural U.S. Counties. *Health Serv Res*. 2018 Dec;53(6):4310-4331. doi: 10.1111/1475-6773.12982. Epub 2018 May 30. PubMed PMID: 29845634; PubMed Central PMCID: PMC6232410.
35. Karim SA*, Pink GH, Reiter KL, **Holmes GM**, Jones CB, Woodard EK. The Effect of the Magnet Recognition Signal on Hospital Financial Performance. *J Healthc Manag*. 2018 Nov-Dec;63(6):e131-e146. doi: 10.1097/JHM-D-17-00215. PubMed PMID: 30418374.
36. Li Y*, **Holmes GM**, Fraher EP, Mark BA, Jones CB. Primary Care Nurse Practitioner Wage Differences by Employment Setting. *Nurs Outlook*. 2018 Nov;66(6):528-538. doi: 10.1016/j.outlook.2018.06.009. Epub 2018 Jul 17. PubMed PMID: 30104024.

37. Dolin R*, **Holmes GM**, Stearns SC, Kirk DA, Hanson LC, Taylor DH Jr, Silberman P. A Positive Association Between Hospice Profit Margin And The Rate At Which Patients Are Discharged Before Death. *Health Aff (Millwood)*. 2017 Jul 1;36(7):1291-1298. doi: 10.1377/hlthaff.2017.0113. PubMed PMID: 28679817.
38. Ludema C, Cole SR, Eron JJ Jr, **Holmes GM**, Anastos K, Cocohoba J, Cohen MH, Cooper HL, Golub ET, Kassaye S, Konkle-Parker D, Metsch L, Milam J, Wilson TE, Adimora AA. Health Insurance Type and Control of Hypertension Among US Women Living With and Without HIV Infection in the Women's Interagency HIV Study. *Am J Hypertens*. 2017 Apr 12. (8 pages)
39. Dolin R* Hanson LC, Rosenblum SF, Stearns SC, **Holmes GM**, Silberman P. Factors Driving Live Discharge From Hospice: Provider Perspectives. *J Pain Symptom Manage*. 2017 Mar 16. (7 pages)
40. Toth M*, **Holmes GM**, Toles M, Van Houtven CH, Weinberger M, Silberman P. Impact of Post-Discharge Follow-Up Care on Medicare Expenditures: Does Rural Make a Difference? *Medical Care Research and Review*. 2018 Jun;75(3):327-353. doi: 10.1177/1077558716687499. Epub 2017 Jan 19. PubMed PMID: 29148323.
41. **Holmes GM**, Fraher EP. Developing physician migration estimates for workforce models. *Health Services Research*. 2017; 52 Suppl 1:529-545.
42. Fraher EP, Knapton A, **Holmes GM**. A Methodology for Using Workforce Data to Determine which Specialties and States Could be Targeted for GME Expansion. *Health Services Research*. 2017; 52 Suppl 1:508-528.
43. Whitaker RG*, **Holmes GM**, Pink GH. How Would Rural Hospitals Be Affected by Loss of the Affordable Care Act's Medicare Low-Volume Hospital Adjustment? *J Rural Health*.2017; 33(2):227-233.
44. Gillen E*, Hassmiller Lich K, Trantham L, Weinberger M, Silberman P, **Holmes GM**. The Effect of Narrow Network Plans on Out-of-Pocket Cost. *The American Journal of Managed Care*. (Approx. 6 pages)
45. Gillen E, Hassmiller Lich K, Trantham L, Silberman P, Weinberger M, **Holmes GM**. Plan Selection in the Non-Group Market in the First Year of the Health Insurance Marketplace. *North Carolina Medical Journal*. 2017; 78(2):77-83.
46. Thomas SR, **Holmes GM**, Pink GH. To What Extent do Community Characteristics Explain Differences in Closure among Financially Distressed Rural Hospitals? *J Health Care Poor Underserved*. 2016; 27(4A):194-203.
47. Ludema C, Cole SR, Eron JJ Jr, Edmonds A, **Holmes GM**, Anastos K, Cocohoba J, Cohen M, Cooper HL, Golub ET, et al. Impact of Health Insurance, ADAP, and Income on HIV Viral Suppression Among US Women in the Women's Interagency HIV Study, 2006-2009. *J Acquir Immune Defic Syndr*. 2016 Nov 1;73(3):307-312. PubMed PMID: 27763995; PubMed Central PMCID: PMC5089078.
48. Roberts AW*, Farley JF, **Holmes GM**, Oramasionwu CU, Ringwalt C, Sleath B, Skinner AC. Controlled Substance Lock-In Programs: Examining An Unintended Consequence Of A Prescription Drug Abuse Policy. *Health Aff (Millwood)*. 2016 Oct 1;35(10):1884-1892. PubMed PMID: 27702963.
49. Kaufman BG*, Reiter KL, Pink GH, **Holmes GM**. Medicaid Expansion Affects Rural And Urban Hospitals Differently. *Health Aff (Millwood)*. 2016 Sep 1;35(9):1665-72. doi: 10.1377/hlthaff.2016.0357. PubMed PMID: 27605649.
50. Toth ME*, **Holmes GM**, Weinberger M, Silberman PC, van Houtven CH, Toles MP. Rural-Urban Differences In The Effect Of Follow-Up Care On Post-Discharge Outcomes. *Health Services Research*. 2017 Aug;52(4):1473-1493. doi: 10.1111/1475-6773.12543. Epub 2016 Aug 8. PubMed PMID: 27500788; PubMed Central PMCID: PMC5517676.
51. **Holmes GM**, Kaufman B*, Pink GH. Predicting Financial Distress and Closure in Rural Hospitals. *J Rural Health*. 2017 Jun;33(3):239-249. doi: 10.1111/jrh.12187. Epub 2016 Aug 8. PubMed PMID: 27500663.

52. **Holmes GM.** Capsule Commentary for Tsilimingras et al., Post- Discharge Adverse Events Among Urban and Rural Patients of an Urban Community Hospital: A Prospective Cohort Study. *J Gen Intern Med.* 2015 Aug;30(8):1190. doi: 10.1007/s11606-015-3385-4. PMID: 25952655
53. Toth M*, **Holmes GM,** van Houtven C, Weinberger M, Silberman P. Rural Medicare Beneficiaries have Poorer Follow-Up Care and Greater Emergency Department Use Post-Discharge. *Medical Care.* 2015 Sep;53(9):800-8.
54. Kaufman B*, Thomas S, Randolph R, Perry J, Thompson K, Pink GH, **Holmes GM.** The Rising Rate of Rural Hospital Closures. 2016 Winter;32(1):35-43. doi: 10.1111/jrh.12128.. *J Rural Health.*
55. Geissler KH*, Stearns SC, Becker C, Thirumurthy H, **Holmes GM.** The relationship between violence in Northern Mexico and potentially avoidable hospitalizations in the USA-Mexico border region. *J Public Health.* 2016 Mar;38(1):14-23.
56. Casey M, Moscovice I, **Holmes GM,** Pink GH, Hung P. Proposed minimum distance requirements could financially harm high-performing Critical Access Hospitals. *Health Affairs.* 2015 Apr;34(4):627-35
57. Geissler KH*, **Holmes GM.** Emergency Department use in the US-Mexico border region and violence in Mexico: is there a relationship? *Journal of Rural Health.* 31(3): 316-325. doi:10.1111/jrh.12109
58. Geissler KH*, Becker C, Stearns SC, Thirumurthy H, **Holmes GM.** Exploring the Association of Homicides in Northern Mexico and Healthcare Access for US Residents. *Journal of Immigrant and Minority Health.* 2015 Aug;17(4):1214-24.
59. Karim S*, **Holmes GM,** Pink GH. The Effect of Surgery on the Profitability of Rural Hospitals. *Journal of Health Care Finance.* 2015; 41(4) (16 pages)
60. Jones CD, **Holmes GM,** DeWalt DA, Erman B, Wu JR, Hawk V, Cene CW, Broucksou K, Baker DW, Schillinger MD, Ruo B, Bibbins-Domingo K, Macabasco-O'Connell A, Pignone M. Self-reported recall and daily diary-recorded measures of weight monitoring adherence: associations with heart failure-related hospitalization. *BMC Cardiovascular Disorders.* 2014 Jan 31;14:12 doi:10.1186/1471-2261-14-12.
61. Wu J-R, DeWalt DA, Baker DW, Schillinger D, Ruo B, Bibbins-Domingo K, Macabasco-Connell A, **Holmes GM,** Broucksou KA, Erman B, Hawk V, Cene CW, Jones CD, Pignone M. A Single-Item Self-Report Medication Adherence Question Predicts Hospitalization and Death in Patients with Heart Failure. *J Clinical Nursing.* 2014. 23(17-18): 2554-2564.
62. Neuwahl S*, Ricketts TC, **Holmes M.** The Impact of General Surgeon Supply on the Risk of Appendiceal Rupture in North Carolina. *Ann Surg* 2014 May;259(5):910-5.
63. Jones CD, **Holmes GM,** Lewis SE*, Thompson KW, Cykert S., DeWalt DA. Satisfaction with electronic health records is associated with job satisfaction among primary care physicians. *Inform Prim Care.* 2013. 21(1):18-20.
64. **Holmes GM,** Morrisson M*, Pathman DE, Fraher EP. The contribution of plasticity to modeling how a community's need for health care services can be met by different configurations of physicians. *Academic Medicine.* 2013 Dec;88(12):1877-82.
65. Wu J-R, **Holmes GM,** DeWalt DA, et al. Low literacy is associated with increased risk of hospitalization and death among individuals with heart failure. *J General Internal Medicine.* 2013 Sep;28(9):1174-80.
66. Reiter KL, **Holmes GM,** Broyles I*. Medicare, Swing Beds, and Critical Access Hospitals. *Medical Care Research and Review.* 2013 Apr;70(2):206-17.
67. **Holmes GM,** Pink GH, Friedman SA*. The Financial Performance of Rural Hospitals and Implications for Elimination of the Critical Access Hospital Program. *Journal of Rural Health.* 2013 Spring;29(2):140-9. doi: 10.1111/j.1748-0361.2012.00425.x.

68. Karim S*, **Holmes GM**, Pink GH. The Effect of Surgery on the Profitability of Rural Hospitals. *Journal of Health Care Finance*. 2015; 41(4) (16 pages)
69. Ku LJE*, Stearns SC, Van Houtven CH, **Holmes GM**. The Health Effects of Caregiving by Grandparents in Taiwan: an Instrumental Variable Estimation. *Review of Economics of the Household*. 2012 Dec; 10(4):521-540.
70. Freburger JK, **Holmes GM**, Ku EL-J*. Post-acute rehabilitation care for hip fracture: Who gets the most intensive care? *The Journal of the American Geriatrics Society*. 2012 Oct;60(10):1929-35.
71. Kearsley CH*, Upchurch G, **Holmes GM**, Weinberger M. The Other Yearly Checkup: Your Patient's Medicare Drug Plan. *Journal of American Pharmacists Association*. 2012 Sep-Oct; 52(5): 634-6.
72. Jones CD, **Holmes GM**, DeWalt DA, Erman B, Broucksou K, Hawk V, Cene C, Wu J, Pignone ME. Is Adherence to Weight Monitoring or Weight-Based Diuretic Self-Adjustment Associated with Fewer Heart Failure-Related Emergency Department Visits or Hospitalizations? *J Cardiac Failure*. 2012 Jul;18(7):576-84.
73. DeWalt DA, Schillinger D, Ruo B, Bibbins-Domingo K, Baker DW, **Holmes GM**, Weinberger M, Macabasco-O'Connell A, Broucksou K, Hawk V, Grady KL, Erman B, Sueta CA, Chang PP, Cene CW, Wu J-R, Jones CD, Pignone ME. A multisite randomized trial of a single- versus multi-session literacy sensitive self-care intervention for patients with heart failure. *Circulation*. 2012 Jun 12;125(23):2854-62.
74. Ozmeral, A*, Reiter KL, **Holmes, GM**, Pink GH. A Comparative Study of Financial Data Sources for Critical Access Hospitals: Audited Financial Statements, the Medicare Cost Report and the Internal Revenue Service Form 990. *J Rural Health*. 2012 Fall;28(4):416-24.
75. **Holmes GM**, Freburger JK, Ku EL*. Decomposing racial and ethnic disparities in the use of post-acute rehabilitation care. *Health Services Research*. 2012 Jun; 47(3 Pt 1):1158-78.
76. Kirk MA, **Holmes GM**, Pink GH. Achieving benchmark financial performance in Critical Access Hospitals: Lessons from high performers. *hfm*. 2012 Apr;66(4):116-20, 122.
77. **Holmes GM**, Pink GH. Adoption and Perceived Effectiveness of Financial Improvement Strategies in Critical Access Hospitals. *Journal of Rural Health*. 2012 Jan;28(1):92-100.
78. Baker DW, Dewalt DA, Schillinger D, Hawk V, Ruo B, Bibbins-Domingo K, Weinberger M, Macabasco-O'Connell A, Grady KL, **Holmes GM**, Erman B, Broucksou KA, Pignone M. The Effect of Progressive, Reinforcing Telephone Education and Counseling vs. Brief Educational Intervention on Knowledge, Self-Care Behaviors and Heart Failure Symptoms. *J Cardiac Failure*. 2011 Oct;17(10):789-96.
79. Freburger JK, **Holmes GM**, Ku E*, Cutchin M, Heatwole-Shank K*, Edwards L. Disparities in Post-Acute Rehabilitation Care for Stroke: An Analysis of the State Inpatient Databases. *Archives of Physical Medicine and Rehabilitation*. 2011 Aug; 92(8):1220-9. (PMID: 21807141)
80. Freburger JK, **Holmes GM**, Ku E*, Cutchin M, Heatwole-Shank K*, Edwards L. Disparities in Post-Acute Rehabilitation Care for Joint Replacement. *iArthritis Care Res*. 2011 Jul; 63(7): 1020-1030.
81. Macabasco-O'Connell A, DeWalt DA, Broucksou KA, Hawk V, Baker DW, Schillinger D, Ruo B, Bibbins-Domingo K, **Holmes GM**, Erman B, Weinberger M, Pignone M. Relationship between literacy, knowledge, self-care behaviors, and symptoms among patients with heart failure. *J Gen Intern Med*. 2011 Sep;26(9):979-86. (PMID: 21369770)
82. Freburger JK, Carey TS, **Holmes GM**. Physical Therapy For Chronic Low Back Pain in North Carolina: Overuse, Underuse, or Misuse? *PT Journal*. April 2011 vol. 91 no. 4 484-495.
83. King J*, **Holmes GM**, Slifkin RT. Rural-Urban Differences in Children's Medicaid and CHIP Participation. *Inquiry*. Summer 2010, Vol. 47, No. 2, pp. 150-161.
84. Richardson I, **Holmes GM**, Randolph RK, Slifkin RT. A Rural-Urban Comparison of Allied Health Professionals' Average Hourly Wage. *Journal of Allied Health*. Vol 39 (4), Fall 2010, pp 91E-96E.

85. Carey TS, Freburger JK, **Holmes GM**, et al. Race, Care Seeking and Utilization for Chronic Back and Neck Pain: Population Perspectives. *The Journal of Pain*. J Pain. 2010 Apr; 11(4): 343-350.. PMID: 19853527. PMCID: PMC2847652
86. Pink GH, **Holmes GM**, Slifkin RT, Thompson RE. Developing Financial Benchmarks for Critical Access Hospitals. *Health Care Financing Review*. Spring 2009. 30(3): 55-70. PMID: 19544935.
87. DeWalt DA, Broucksou KA, Hawk V, Baker DW, Schillinger D, Ruo B, Bibbins-Romino K, **Holmes GM**, Weinberger M, Macabasco-Connel A, and Pignone M. Comparison of a one-time educational intervention to a teach-to-goal educational intervention for self-management of heart failure. *BMC Health Services Research*. 2009, 9:99 (14 pages). PMCID: PMC2702288.
88. Carey TS, Freburger JK, **Holmes GM**, Castel L, Darter J, Agans R, Kalsbeek W, Jackman A. A long way to go: Practice patterns and evidence in chronic low back pain care. *Spine*. 2009 Apr 1; 34(7):718-24. PMCID: PMC2664198.
89. Freburger JK, **Holmes GM**, Agans RP, Jackman AM, Darter JD, Wallace AS, Castel LD, Kalsbeek WD, Carey TS. The rising prevalence of chronic low back pain. *Archives Intern Med*. 2009, vol 169(3): 251-258. PMID: 19204216.
90. Freburger JK, Carey TS, **Holmes GM**, Wallace AS, Castel LD, Darter JD, Jackman AM. Exercise Prescription for Chronic Back or Neck Pain: Who Prescribes It? Who Gets It? What is Prescribed? *Arthritis Care Res*. 2009 Feb 15;61(2):192-200. PMID: 19177524
91. Castel LD, Freburger JK, **Holmes GM**, Scheinman RP*, Jackman AM, Carey TS. Spine and pain clinics that treat patients with back and neck pain: what do they do, and are they multidisciplinary? *Spine*. 2009 Mar 15; 34(6):615-22. PMCID: PMC2757449.
92. Reiter K, Slifkin RT, **Holmes GM**. The Occupational Mix Adjustment to The Medicare Hospital Wage Index: Why the Rural Impact is Less Than Expected. *Journal of Rural Health*. Spring 2008, pages 148-154. PMID: 18397449.
93. Ricketts TC, **Holmes GM**. Mortality and Physician Supply, Does Region Hold the Key to the Paradox? *Health Services Research*. December 2007, 42(6p1): 2233-2251. PMCID: PMC2151400.
94. Pink GH, **Holmes GM**, Thompson RE, Slifkin RT. Variations in Financial Performance Among Peer Groups of Critical Access Hospitals. *Journal of Rural Health*. Fall 2007, 23(4): 299-305. PMID: 17868236.
95. Ricketts TC, Goldsmith LJ*, **Holmes GM**, Randolph R, Lee R, Taylor DH, Ostermann J. Designating Places and Populations as Medically Underserved: A Proposal for a New Approach. *Journal of Health Care for the Poor and Underserved*. August 2007, 18(3): 567-589. PMID: 17675714.
96. Rupp, Nicholas G. and **Holmes GM**. An Investigation Into the Determinants of Flight Cancellations. *Economica*. Vol. 73, Issue 292, pp. 749-783, November 2006.
97. Stearns SC, Dalton K, **Holmes GM**, Seagrave S. Using Propensity Stratification to Compare Patient Outcomes in Hospital-Based versus Freestanding Skilled Nursing Facilities. *Medical Care Research and Review*. October 2006, Vol. 63, No. 5, 599-622. PMID: 16954309.
98. Carson SC, Cox CE, **Holmes GM**, Howard HA, Carey TS. The Changing Epidemiology of Mechanical Ventilation: A Population Based Study. *Journal of Intensive Care Medicine*. May 2006, 21(3):173-82. PMID: 16672639.
99. Pink GH, **Holmes GM**, D'Alpe C*, Strunk LA*, McGee P*, Slifkin RT. Financial Indicators for Critical Access Hospitals. *Journal of Rural Health*. Summer 2006, 22(3), 229-236. PMID: 16824167.
100. **Holmes GM**, Slifkin RT, Randolph RK, Poley S*. The Effect of Rural Hospital Closures on Community Economic Health. *Health Services Research*. April 2006, Volume 41(2), Page 467- 485. PMCID: PMC1702512

101. Freburger JK, Carey TS, **Holmes GM**. Effectiveness of physical therapy for the management of chronic spine disorders: a propensity score approach. *Physical Therapy*. 2006 Mar; 86(3): 381-394. PMID: 16506874.
102. Freburger JK, Carey TS, **Holmes GM**. Management of back and neck pain: Who seeks care from physical therapists? *Physical Therapy*. 2005 Sep;85(9):872-86. PMID: 16117598.
103. Freburger JK, Carey TS, **Holmes GM**. Physician referral to physical therapy for the treatment of spine disorders. *Spine J*. 2005 Sep-Oct;5(5):530-41. PMID: 16153582.
104. **Holmes, GM**. Increasing Physician Supply in Medically Underserved Areas. *Labour Economics*. Volume 12, Issue 5, October 2005, Pages 697-725.
105. **Holmes, GM**, Jeffrey S. DeSimone, and Nicholas G. Rupp. Friendly Competition. *Education Next*. Winter 2005, pages 67-70.
106. Rupp, Nicholas G., **Holmes GM**, and Jeffrey S. DeSimone. Airline Schedule Recovery after Airport Closures: Empirical Evidence since September 11th. *Southern Economic Journal*. April 2005, 71(4), 800-820.
107. Fraher EP*, Slifkin RT, Smith L*, Randolph R, Rudolf M, **Holmes GM**. How might the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 affect the financial viability of rural pharmacies? An analysis of preimplementation prescription volume and payment sources in rural and urban areas. *Journal of Rural Health*. Spring 2005, 21(5) 114-121. PMID: 15859048
108. Freburger JK, **Holmes GM**. Determinants Of Physical Therapy Use By Community-Based Older People. *Physical Therapy*. 85(1): 19-33, January 2005. PMID: 15623359.
109. **Holmes, GM**. Does The National Health Service Corps Improve Physician Supply In Underserved Locations? *Eastern Economic Journal*. 30(4): 563-581, Fall 2004.
110. Cox CE, Carson SS, **Holmes GM**, Howard HA, Carey TS. Increase in Tracheostomy for Prolonged Mechanical Ventilation in North Carolina, 1993-2002. *Critical Care Medicine*. 32(11):2219-2226, November 2004. PMID: 15640633.
111. Lewis CL, Cox CE, Garrett JM, Hanson L, **Holmes GM**, Howard A, Carey TS. Trends in the Use of Feeding Tubes in North Carolina Hospitals. *J Gen Intern Med* 2004;19(10):1034-8. PMCID: PMC1492585. PMCID: PMC1492585.
112. Freburger JK, **Holmes GM**, Carey TS. 2003. Physicians' Referral to Physical Therapy for the Treatment of Musculoskeletal Conditions. *Archives of Physical Medicine and Rehabilitation*. Vol 84, Issue 12, 1839-1849. PMID: 14669192.
113. **Holmes, GM** Effect of Extreme Weather Events On Student Test Performance. 2002. *Natural Hazards Review*. Vol 3, Issue 3, 82-91.

Peer-Reviewed Reports

1. North Carolina Institute of Medicine. *Healthy Foundations for Healthy Youth: A Report of the NCIOM Task Force on Adolescent Health*. 2009.
2. North Carolina Institute of Medicine. *Prevention for the Health of North Carolina: Prevention Action Plan*. 2009.
3. North Carolina Institute of Medicine. *Expanding Access to Health Care in North Carolina: A Report of the NCIOM Health Access Study Group*. 2009.
4. North Carolina Institute of Medicine. *Successful Transitions for People with Developmental Disabilities: A Report of the NCIOM Task Force on Transitions for People with Developmental Disabilities*. 2009.
5. North Carolina Institute of Medicine. *Building a Recovery-Oriented System of Care: A Report of the NCIOM Task Force on Substance Abuse Services*. 2009.

6. North Carolina Institute of Medicine. *Chronic Kidney Disease Task Force Report: Addressing Chronic Kidney Disease in NC*. 2008.
7. North Carolina Institute of Medicine. *Just What Did the Doctor Order?: Addressing Low Health Literacy in North Carolina*. 2007.
8. North Carolina Institute of Medicine. *Providers in Demand: North Carolina's Primary Care and Specialty Supply*. 2007.
9. North Carolina Institute of Medicine. *Stockpiling Solutions: North Carolina's Ethical Guidelines for an Influenza Pandemic*. 2007.
10. North Carolina Institute of Medicine. *Expanding Health Insurance Coverage to More North Carolinians*. 2006.

Refereed Presentations

1. Culture of Health in Appalachia: Disparities / Bright Spots. National Rural Health Association Annual Conference. May 2016.
2. Culture of Health in Appalachia: Disparities and Bright Spots. National Rural Health Association Equity Conference. May 2016.
3. Forecasting Future Healthcare Use. American Society of Health Economists. June 2014.
4. CAH Financial Improvement: What Works? NRHA Annual Meeting. April 2014.
5. Effect of Swing Bed Use on Medicare Average Daily Cost and Reimbursement in Critical Access Hospitals. Academy Health Annual Research Meeting, June 2012.
6. Geography and Health Services Research (with Tom Ricketts). Academy Health Annual Research Meeting, June 2012.
7. Developing an Open Source Simulation Model of Physician Supply and Healthcare Utilization. Academy Health Annual Research Meeting, June 2012.
8. Developing an open source simulation model of physician supply and healthcare utilization. AAMC Physician Workforce Research Conference. May 2012.
9. Potential Effects of Various Proposed Changes to the Critical Access Hospital Program. National Rural Health Association Annual Conference, April 2012.
10. Changes in Obstetrical Services Among Critical Access Hospitals. National Rural Health Association Annual Conference, April 2012.
11. Local Collaborations in Rural Communities - Developing, Leveraging, & Valuing. National Rural Health Association Annual Conference, April 2012.
12. Multi-session self-care training improves knowledge, self-efficacy and self-care behaviors for low and high-literacy patients with heart failure. Health Literacy Annual Research Conference, October 2011.
13. Geographic Regression for Health Services Research. AcademyHealth Annual Research Meeting, June 2007.
14. Impact of Critical Access Hospital Program on Financial Performance. AcademyHealth Annual Research Meeting, June 2006.
15. Propensity Scores versus IV Methods: An Illustration of Controlling for Medicare Patient Selection into Hospital-based versus Freestanding Nursing Homes. AcademyHealth Annual Research Meeting, June 2006.
16. The Influence of Siblings on the Supply of Informal Care to Elderly Parents. Southern Economic Association Annual Meeting, November 2003.

17. Hospital Closures and the Effect on the Community. Southern Economic Association Annual Meeting, November 2003.
18. On Teacher Incentives and Student Achievement. Southern Economic Association Annual Meeting, November 2003.
19. Why Are So Many Flights Cancelled? Southern Economic Association Annual Meeting, November 2003.
20. Hospital Closures and Community Economic Health. National Rural Health Association, May 2003.
21. Do Charter Schools Increase Achievement of Traditional Public Schools? Southern Economic Association Annual Meeting, November 2002.
22. Physician Specialty Choice: What Role Do Characteristics of the Specialty Play? Southern Economic Association Annual Meeting, November 2002.
23. School Choice and Student Performance: Do Charter Schools Increase Competing School Quality? Midwest Economic Association Annual Meeting. March 2001.

Unrefereed articles and abstracts

1. Randolph R, **Holmes M**. Running the Numbers: Health Insurance Coverage in North Carolina: The Rural-Urban Uninsured Gap. *N C Med J*. 2018 Nov-Dec;79(6):397-401. doi: 10.18043/ncm.79.6.397. PubMed PMID: 30397093.
2. **Holmes M**. The Sufficiency of Health Care Professional Supply in Rural North Carolina. *N C Med J*. 2018 Nov-Dec;79(6):372-377. doi: 10.18043/ncm.79.6.372. PubMed PMID: 30397084.
3. Williams D Jr*, **Holmes M**. Rural Health Care Costs: Are They Higher and Why Might They Differ from Urban Health Care Costs? *N C Med J*. 2018 Jan-Feb;79(1):51-55. doi: 10.18043/ncm.79.1.51. PubMed PMID: 29439106.
4. **Holmes GM**. Financially fragile rural hospitals: mergers and closures. *N C Med J*. 2015 Jan;76(1):37-40. PubMed PMID: 25621479.
5. **Holmes GM** County-level estimates of the number of individuals in North Carolina who would be eligible for coverage under the Affordable Care Act's expanded insurance options. *N C Med J*. 2013 Jul-Aug;74(4):343-7.
6. **Holmes GM** Regional variation in quality of health care across North Carolina's 100 counties. *N C Med J*. 2013 Jul-Aug;74(4):343-7.
7. **Holmes GM** Running the Numbers: Proximity to National Committee for Quality Assurance Diabetes Recognition Programs Among North Carolinians With Diabetes. *N C Med J*. 2011;72(3):241-242.
8. **Holmes GM**, Pink GH. Rural Hospital Profitability. *Healthcare Financial Management* 65(4):136-7. April 2011.
9. Yorkery BS, Ford CA, Cline S, Lee H, Silberman PC, Carter H, Coyne-Beasley T, Jones DK, Speizer I, **Holmes GM**. Developing Healthy, Happy, and Productive Young Adults: The North Carolina Metamorphosis Project and the NCIOM Task Force on Adolescent Health *N C Med J*. July/August 2010;71(4):343-351.
10. **Holmes GM**, Ford CA. Now the Hard Work Begins. *North Carolina Medical Journal*. July/August 2010. Volume 71(4), 377-379.
11. **Holmes GM**. Running the Numbers: Projected Changes in North Carolina Health Insurance Coverage due to Health Reform. *North Carolina Medical Journal*. May/June 2010. Volume 71(3), 306-208.
12. Hastings J, Devlin L, Engel JP, Seligson RW, Roper WL, Yorkery B, Lichstein J*, Alexander-Bratcher K, Nielsen C, Jones D*, Carter H*, Liao C*, Davis C*, Silberman P, **Holmes GM**. Issue Brief: Prevention for the Health of North Carolina. *North Carolina Medical Journal*. Jan/Feb 2010. Volume 71(1), 30-57.

13. Easley C, Petersen R, **Holmes GM**. Running the Numbers: The Health and Economic Burden of Chronic Disease in North Carolina. *North Carolina Medical Journal*. Jan/Feb 2010. Volume 71(1), 92-95.
14. Silberman PC, Bodfish J, Brown AT, Wainwright L, Yorkery BS, Lichstein JC*, Alexander-Bratcher KM, Davis C*, Lerche J*, **Holmes GM**. Issue Brief: Successful Transitions for People with Intellectual and Other Developmental Disabilities. *North Carolina Medical Journal*. Nov/Dec 2009. Volume 70(6), 519-526.
15. **Holmes GM**. (Guest Editor) Can We Be Healthy While Our Economy is Unhealthy? *North Carolina Medical Journal*. Jul/Aug 2009. Volume 70(4), 321-325.
16. Lichstein J, Holliman H, Rand T, Dobson LA, Lerche J, **Holmes GM**, Silberman P. Expanding Access to Health Care in North Carolina: the NCIOM Health Access Study Group. *N C Med J*. 2009;70(4):309-317
17. Ricketts TC, **Holmes GM**. Geographic analysis: need for better data. *Health Affairs*. 2009 Mar-Apr; 28(2):595.
18. Silberman PC, Insko V, Nesbitt ML, Book D, Alexander-Bratcher K, Yorkery B, Hastings J, Shive D, Lichstein J, **Holmes GM**. Issue Brief: Substance Abuse in North Carolina. *North Carolina Medical Journal*. Jan/Feb 2009. Volume 70(1), 25-34.
19. Cohen MG, **Holmes GM**, Carey TS, et al. Differential trends in use of revascularization procedures in myocardial infarction patients according to socioeconomic status. *Circulation*. Sep 16 2008, 118(12): E295-E295.
20. Cohen MG, **Holmes GM**, Carey TS, et al. Substantial gaps in myocardial infarction care and outcomes across socioeconomic groups in the contemporary era of evidence-based medicine. *Circulation*. Sep 16 2008, 118(12): E452-E452.
21. Alexander-Bratcher KM, Plescia M, Skipper L, Silberman P, **Holmes GM**. Issue Brief: Chronic Kidney Disease in North Carolina. *North Carolina Medical Journal*. May/June 2008. Volume 69(3), 197-204.
22. King J*, **Holmes GM**. Shaping Health Workforce Policy Through Data-Driven Analyses: The North Carolina Health Professions Data System *North Carolina Medical Journal*. Mar/Apr 2008. Volume 69(2), 139-141.
23. **Holmes GM**, Bacon TJ, Dobson LA, McGorty EK, Silberman P. Addressing Health Literacy Through Improved Patient-Practitioner Communication. *North Carolina Medical Journal*. Sep/Oct 2007. Volume 68(5), 319-326.
24. Silberman P, Estes EH, Dubay KL, **Holmes GM**. Issue Brief: Weathering the Practitioner Workforce Shortage. *North Carolina Medical Journal*. May/June 2007. Volume 68(3), 159-168.
25. McGorty EK, Devlin L, Tong R, Harrison N*, **Holmes GM**, Silberman P. Ethical Guidelines for an Influenza Pandemic. *North Carolina Medical Journal*. January/February 2007. Volume 68(1), 38-42.
26. Ricketts TC, **Holmes GM**. The Uninsured in North Carolina, 2004. *North Carolina Medical Journal*. May/June 2006. Volume 67(3), 235-236.
27. **Holmes, GM** Latinos, Immigrants, and the Uninsured. *North Carolina Medical Journal*. May/June 2006. Volume 67(3), 202-205.
28. Silberman, Pam, Carmen Hooker Odom, Thomas Lambeth, **Holmes GM**, and Kristen L. Dubay. Issue Briefs: North Carolina's Uninsured. *North Carolina Medical Journal*. May/June 2006. Volume 67(3), 183-191.
29. *Three Essays on the Effect of Federal Subsidies on Physician Location*. Unpublished Dissertation. University of North Carolina-Chapel Hill, 1999.

Unrefereed Presentations

1. Rural Hospital Closures. NRSA Fellowship Program. November 2014.
2. Change in Profitability and Financial Distress of CAHs from Loss of Cost-Based Reimbursement. Rural Health Research Gateway Webinar. October 2014.
3. Comparative Effectiveness Research on Systems and Facilities. Florida State University College of Medicine Grand Rounds. May 2014.
4. FutureDocs Forecasting Tool: A Modifiable Physician Projection Model. NC Medical Society Accountable Care Organization Collaborative. May 2014.
5. Health Care Reporting in an Age of Shrinking Newsrooms, the Internet, the Affordable Care Act and HIPAA (Panelist). NC Medical Society Health Care Media Summit. April 2014.
6. The Goldilocks of NC Health Professional Supply. Leadership North Carolina. February 2014.
7. Some U(0,1) Thoughts on Measuring Systems and Facilities. Sheps Center Comparative Effectiveness Research Workshop Series. July 2013.
8. Health Care Costs in Rural NC. NC Institute of Medicine. July 2013.
9. Does Local Unemployment Affect Hospital Admission Rates? Triangle Health Economics Workshop. February 2012.
10. Enrollment and Plan Choice in a First-Year High-Risk Pool. Appalachian State University. February 2012.
11. Swing Bed Use in Rural Areas. Rural Health Research Center Directors' Meeting. November 2011.
12. The CAH Financial Indicators Report. Arizona State Office of Rural Health, November 2011.
13. Improving CAH Operational and Financial Performance. NRHA CAH Conference, September 2011.
14. Rural Hospital Closures. NRHA Rural Health Fellows. September 2011.
15. Adoption and Perceived Effectiveness of Financial Improvement Strategies in CAHs. Mid South CAH Conference, August 2011.
16. Financial Distress. ICAHN CFO Workgroup, July 2011.
17. Methods for Comparative Effectiveness Research. AHRQ National Research Service Award Training Grant Program, January 2011.
18. Trends in CAH Finance. National Conference of State Flex Programs, Bloomington MN. Jul 2010.
19. Comparison of educational interventions for self-management of heart failure. Department of Health Policy and Management, UNC Chapel Hill. Nov 2009.
20. CAH Finances in Turbulent Times. National Rural Health Association Critical Access Hospital Conference. October 2009.
21. Recent and Projected Financial Experience of Rural Hospitals. Rural Hospital Issues Group. Chicago, IL. May 2009
22. The NC Healthcare Quality Alliance. NC Medical Society Quality Committee. Raleigh NC. February 2009.
23. The NC Healthcare Quality Alliance. Center for Health Care Strategies Regional Quality Initiative Wrap-Up Meeting. Washington DC. December 2008
24. The Flex Program at 10 Years: The Financial Experience of Small Rural Hospitals. National Conference of State Flex Programs, July 2008.

25. The Uninsured in North Carolina. NCIOM Uninsured and Safety Net Summit, June 2008.
26. Regional Quality Improvement. Center for Health Care Strategies RQI All-program meeting. July 2007.
27. Uninsurance in North Carolina: Consequences and Next Steps. Cecil G. Sheps Center for Health Services Research, Policy Board Meeting. January 2006.
28. Insurance Status, Premiums, and Cost Sharing on Take Up Rates and Use of Services, UNC Emergency Medicine Residency Conference. August 2005.
29. Physician Specialty Choice: What Role Do Characteristics of the Specialty Play? Department of Economics, ECU, October 2002.
30. Stochastic Demand in Low Volume Hospitals. Triangle Health Economics Workshop, University of North Carolina, November 2001.
31. Stochastic Demand in Low Volume Hospitals. Department of Economics, ECU, October 2001.
32. How Extreme Weather Events Affect Student Test Performance. East Carolina University Coastal Hazards Conference, May 2001.
33. Developing a New Method for Measuring Medical Underservice. National Conference of Rural Health Research Center Directors, HRSA, May 2001.
34. School Choice and Student Test Performance. Department of Economics, ECU, 2000
35. The Long Term Effect of the National Health Service Corps. Department of Economics, ECU, 1999
36. The Political Economy of Health Services Funds Allocations: The Effect of Congressional Characteristics: 1976-1980. National Conference of Rural Health Research Center Directors, HRSA, March 1998.

Unrefereed briefs and reports

1. Thomas SR, Randolph R, **Holmes GM**, Pink GH. FB 135. The Financial Importance of the Sole Community Hospital Payment Designation (November 2016) North Carolina Rural Health Research Program.
2. Whitaker RG, Pink GH, **Holmes GM**. The Impact of the Low Volume Hospital (LVH) Program on the Viability of Small, Rural Hospitals (October 2016). FB 134. North Carolina Rural Health Research Program.
3. Kaufman BG, Randolph R, Pink G, **Holmes MGM**. Trends in Risk of Financial Distress among Rural Hospitals (October 2016) FB 133. North Carolina Rural Health Research Program.
4. Domino M, Tyree S, Rutledge R, Randolph R, Pink G, **Holmes GM**. Characteristics of Medicaid Beneficiaries Who Use Rural Health Clinics (May 2016). FB 132. North Carolina Rural Health Research Program.
5. Domino M, Tyree S, Rutledge R, **Holmes MGM**. Identifying Rural Health Clinics in Medicaid Data (May 2016). FB 131. North Carolina Rural Health Research Program.
6. Thomas S, **Holmes GM**, Pink G 2012-14 Profitability of Urban and Rural Hospitals by Medicare Payment Classification (March 2016). FB 128. North Carolina Rural Health Research Program.
7. Thomas S, Pink G, **Holmes GM**. Geographic Variation in the Profitability of Urban and Rural Hospitals (March 2016). FB 129. North Carolina Rural Health Research Program.
8. Kaufman B, Rutledge R, Pink G, **Holmes GM**. Geographic Variation in Risk of Financial Distress among Rural Hospitals (January 2016) FB 127. North Carolina Rural Health Research Program.

9. Kaufman B, Pink G, **Holmes GM**. Prediction of Financial Distress among Rural Hospitals (January 2016) FB 126. North Carolina Rural Health Research Program.
10. Rutledge R, **Holmes GM**, Silberman P Estimating Eligibility and Uptake of Federally Facilitated Marketplace Insurance in North Carolina in the Second Open Enrollment Period (October 2015). FB 124. North Carolina Rural Health Research Program.
11. Reiter KL, **Holmes GM**. A Critique of the Office of the Inspector General's Report on Swing Beds in Critical Access Hospitals. 2015. NC Rural Health Research Program.
12. Freeman V, Thompson KW, Howard HA, Randolph R, **Holmes GM**. The 21st Century Rural Hospital: A Chart Book. 2015. NC Rural Health Research Program.
13. Kaufman B*, Silberman P, **Holmes GM**. Rural Provider Perceptions of the ACA: Case Studies in Four States. 2015. NC Rural Health Research Program.
14. Moss K*, **Holmes GM**, Pink G. Do Current Medicare Rural Hospital Payment Systems Align with Cost Determinants? 2015. NC Rural Health Research Program.
15. Toth M*, Quach C*, **Holmes GM**. Rural-Urban Differences in Continuity of Care among Medicare Beneficiaries (December 2014) FB119.
16. Silberman P, Thomas S, Kaufman B*, Perry J, **Holmes GM**. Best Practices for Health Insurance Marketplace Outreach and Enrollment in Rural Areas (December 2014) FS01.
17. **Holmes, M.**; Silberman, P; Thompson, K; Freeman, V; Randolph, R. Geographic Variation in Plan Uptake in the Federally Facilitated Marketplace. NC Rural Health Research Program. FB 118. September 2014
18. Noles, M.*, Reiter, K.L., H. Pink, G.H., **Holmes, GM**. Rural Hospital Mergers and Acquisitions: Who Is Being Acquired and What Happens Afterward? NC Rural Health Research Program. FB117. August 2014.
19. Thompson, K., Kaufman, B.*, and **Holmes, M**. How Does Medicaid Expansion Affect Insurance Coverage of Rural Populations? NC Rural Health Research Program. FB116 July 2014.
20. Radford, A., Freeman, V., Kirk, D., Howard, A., **Holmes, GM** Safety Net Clinics Serving the Elderly in Rural Areas: Rural Health Clinic Patients Compared to Federally Qualified Health Center Patients. NC Rural Health Research Program. FB115. July 2014.
21. Freeman V, Randolph R, **Holmes GM**. Discharge to Swing Bed or Skilled Nursing Facility: Who Goes Where? Findings Brief, North Carolina Rural Health Research Program. (2014)
22. Toth* M, **Holmes GM**, Freeman V, Pink GH. Rural/Urban Differences in Inpatient Related Costs and Use among Medicare Beneficiaries. Findings Brief, North Carolina Rural Health Research Program. (2013)
23. Freeman V, Randolph R, Pink GH, **Holmes GM**. Implications for Beneficiary Travel Time if Financially-Vulnerable Critical Access Hospitals Close. Findings Brief, North Carolina Rural Health Research Program. (2013)
24. **Holmes GM**, Pink GH. Change in Profitability and Financial Distress of Critical Access Hospitals from Loss of Cost-Based Reimbursement. Findings Brief, North Carolina Rural Health Research Program. (2013)
25. Pink GH, Freeman V, Randolph R, **Holmes GM**, Pink GH. Geographic Variation in the Profitability of Critical Access Hospitals. Findings Brief, North Carolina Rural Health Research Program. (2013)
26. Pink GH, Freeman V, Randolph R, **Holmes GM**, Pink GH. Profitability of Rural Hospitals. Findings Brief, North Carolina Rural Health Research Program. (2013)
27. Reiter KL, **Holmes GM**, Karim SA*, Pink GH. Communities Served by Rural Medicare Dependent Hospitals. Findings Brief #104, North Carolina Rural Health Research and Policy Analysis Center. (2011)

28. Reiter, K., **Holmes, GM**, Pink, G.H., Freeman, V. Effect of Swing Bed Use on Medicare Average Daily Cost and Reimbursement in Critical Access Hospitals. Findings Brief #103, North Carolina Rural Health Research and Policy Analysis Center. (2011)
29. **Holmes GM** and Pink GH. Risk of Financial Distress Among Critical Access Hospitals: A Proposed Model. Policy Brief (Policy Brief #19). Flex Monitoring Team, April 2011.
30. **Holmes GM**, Karim S* and Pink GH. Changes in Obstetrical Services in Critical Access Hospitals. Policy Brief (Policy Brief #18). Flex Monitoring Team, March 2011.
31. **Holmes, GM**, Karim, S*, Pink, G. Trends in the Provision of Surgery by Rural Hospitals. Findings Brief #101, North Carolina Rural Health Research and Policy Analysis Center. (2011)
32. King, J*., **Holmes, GM**. Recent Changes in Health Insurance Coverage in Rural and Urban Areas. Findings Brief #100, North Carolina Rural Health Research and Policy Analysis Center. (2011)
33. **Holmes GM**, Pink GH, Howard HA. Profitability of Rural Hospitals Paid Under Prospective Payment Compared to Rural Hospitals with Special Medicare Payment Provisions. Findings Brief #97, North Carolina Rural Health Research and Policy Analysis Center. (2010)
34. **Holmes GM**, Pink GH, Friedman SA*, Howard HA. A Comparison of Rural Hospitals with Special Medicare Payment Provisions to Urban and Rural Hospitals Paid Under Prospective Payment. Working Paper #98, North Carolina Rural Health Resindings Brief #90, North Carolina Rural Health Research and Policy Analysis Center.(2009).
35. **Holmes GM**, Ricketts TC, King J*. Updating Uninsured Estimates in an Economic Downturn. Mar 2009. Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.
36. Health Care Cost and Insurance Coverage in Five Southern States. NCIOM Data Snapshot 2009-3. Mar 2009.
37. Characteristics of the Uninsured in Five Southern States. NCIOM Data Snapshot 2009-2. March 2009.
38. North Carolina's Increase in the Uninsured: 2007-2009. NCIOM Data Snapshot 2009-1. March 2009.
39. County-Level Estimates of Non-Elderly Uninsured. NCIOM Data Snapshot 2008-2. September 2008.
40. Characteristics of Uninsured North Carolinians 2006-07. NCIOM Data Snapshot 2008-1.
41. CAH Financial Indicators Report: Summary of Indicator Medians by State. Flex Monitoring Team Data Summary Report No. 5, August 2008.
42. Pink GH, Howard HA, **Holmes GM**, Thompson RE, Slifkin RT. Differences in Measurement of Operating Margin. Flex Monitoring Team Briefing Paper No. 17. 2008.
43. Reiter K, Slifkin R, **Holmes GM**. A Primer on the Occupational Mix Adjustment to the Medicare Wage Index. Working Paper Series No. 86. Chapel Hill, NC: North Carolina Rural Health Research and Policy Analysis Center, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill, 2006.
44. **Holmes GM**, Pink GH, Slifkin RT. Impact of Conversion to Critical Access Hospital Status on Hospital Financial Performance and Condition. Flex Monitoring team (2006).
45. Pink G, **Holmes GM**, D'Alpe C, Strunk L, McGee P, Slifkin R. Financial indicators for Critical Access Hospitals. Flex Monitoring Team Briefing Paper No. 7. 2005.
46. **Holmes GM** and Ricketts T. County Level Estimates of the Number of Uninsured in North Carolina, 2004 Update. Cecil G. Sheps Center for Health Services Research (2005).
47. Greene SB, **Holmes GM**, Slifkin RT, Freeman V, Howard A. Cesarean Section Rates in Rural Hospitals. Findings Brief #79, North Carolina Rural Health Research and Policy Analysis Center. (2005).

48. Dalton K, **Holmes GM**, Slifkin RT. Unpredictable Demand and Low-Volume Hospitals. Findings Brief #75, North Carolina Rural Health Research and Policy Analysis Center.(2003).
49. Dalton K, **Holmes GM**, Slifkin RT. Unstable Demand and Cost per Case in Low-Volume Hospitals. Findings Brief #76, North Carolina Rural Health Research and Policy Analysis Center. (2003).

Presentations to Governmental Entities

1. Rural Access: Is VA Meeting All Veterans Where They Live? House Veterans Affairs Committee, January 2024.
2. Attribution in Rural Areas. Physician-Focused Payment Model, Technical Advisory Committee, Assistant Secretary of Planning and Evaluation., September 2023.
3. Improving Health Care Access in Rural Communities. Senate Finance Committee, Subcommittee on Health, May 2023.
4. Improving Rural Health: North Carolina and Beyond. North Carolina General Assembly, House Committee on Health, February 2017.
5. State and Local Responsibilities and Funding for Medicaid and Other Health Care Services. North Carolina General Assembly State and Local Fiscal Modernization Study Commission. November 2006
6. NC IOM Task Force on Covering the Uninsured: High Risk Pool. North Carolina General Assembly House Insurance Committee. June 2006.
7. High Risk Pool. North Carolina General Assembly House Select Committee on Health Care, Subcommittee on Access. March 2006.
8. Healthy North Carolina and High Risk Pool. North Carolina General Assembly House Select Committee on Health Care, Subcommittee on the Cost of Health Care and Health Insurance for Employers and Employees. March 2006.
9. The Economics of Access to Health Care. North Carolina General Assembly House Select Committee on Health Care, Subcommittee on Access. February 2006.
10. Health Insurance Statistics for North Carolina. North Carolina Department of Insurance, Small Group Discussion Group. January 2006.
11. Health Insurance Coverage of North Carolinians. North Carolina General Assembly House Select Committee on Health Care, Subcommittee on the Cost of Health Care and Health Insurance for Employers and Employees. December 2005
12. Overview of Small Business Health Insurance in North Carolina. North Carolina General Assembly Joint Select Committee on Small Business Economic Development, March 2004.

Community Presentations

1. Rational Decisions in an Irrational healthcare System. UNC Program on the Humanities, April 2012.
2. The State of Health in Rural North Carolina. Center for Creative Leadership, Ladder to Leadership Program, November 2009.
3. Health Reform: Beyond Access. UNC Scholars Program. November 2009.
4. Insurance in North Carolina. Our Community, Our Health Care, Our Vote series. League of Women Voters of Orange and Durham Counties. August 2008. Chapel Hill, NC

5. The NC Uninsured: Who Are They, Why Do We Care, and What Can We Do? New Hanover County Health Summit. Wilmington, NC. September 2008
6. What *did* the doctor just order?: Low health literacy in North Carolina. 2008 Mecklenburg County Health Forum, April 2008.
7. Health Care Access, Quality and Costs: Problems and Solutions. 2008 Mecklenburg County Health Forum, April 2008.
8. The Healthcare Workforce Picture in North Carolina: Trends, Challenges and Opportunities: Physicians, Nurse Practitioners, Physician Assistants, and Certified Nurse Midwives. Carteret General Hospital, April 2008
9. What *did* the doctor just order?: Low health literacy in North Carolina. Leadership North Carolina, December 2007.
10. Absence of Health Insurance: What Will the Impact Be? Wilson Medical Center Symposium (Area L AHEC). November 2007.
11. Pandemic Influenza and Ethics. Healthy North Carolinians Annual Conference. October 2007.
12. What did the doctor just order?: Low Health Literacy in North Carolina. Area L AHEC. June 2007.
13. Pandemic Influenza Planning. Shaftesbury Society, John Locke Foundation. June 2007.
14. NC IOM Report: Ethical Guidelines for Pandemic Influenza. North Carolina Hospital Association Pandemic Influenza Briefing. June 2007.
15. Healthcare in North Carolina: Balancing Cost, Quality and Access. Emerging Tar Heel Leaders. February 2007.
16. Data Resources: Uninsured and Safety Net. 2007 Community Health Assessment Institute. February 2007.
17. Weathering the Storm: Preparing for Disaster. North Carolina Medical Society, October 2006.
18. North Carolina's Uninsured and Safety Net. Eastern Regional Directors of Social Services, August 2006.
19. Healthcare Policy and Politics in North Carolina: Reports from NC IOM: Covering the Uninsured/2006 and Healthcare Safety Net/2005. Governor's Task Force on Healthy Carolinians, June 2006.
20. Health Insurance Statistics for North Carolina. North Carolina Health Insurance Innovations Commission. February 2006.
21. Patterns of Care for Medicare Cancer Patients, Global Access Project, September 2005.
22. Employer Sponsored Insurance In North Carolina. North Carolina Institute of Medicine Covering the Uninsured Task Force, June 2005.
23. Overview Of Low-Income Uninsured. North Carolina Institute of Medicine Covering the Uninsured Task Force, April 2005.
24. Impact Of Premiums And Cost Sharing On Take Up Rates And Use Of Services. North Carolina Institute of Medicine Covering the Uninsured Task Force, April 2005.
25. Overview of the Uninsured in North Carolina. North Carolina Institute of Medicine Covering the Uninsured Task Force, February 2005.
26. Overview of the Uninsured in North Carolina: 2004. North Carolina Institute of Medicine Board of Directors, October 2004.
27. 2003 Numbers of Uninsured: Update. North Carolina Institute of Medicine Safety Net Task Force, September 2004.

28. Update on County-Level Estimates of the Uninsured. North Carolina Institute of Medicine Safety Net Task Force, June 2004.
29. Overview of the Uninsured in North Carolina. North Carolina Institute of Medicine Safety Net Task Force, March 2004.
30. Toward a Measure of Dental Underservice: A Primary Care Model of Underservice. Dental Economics Advisory Group, American Dental Association, February 2004.

Electronic Media Appearances

- News and Views, with Chris Fitzsimon (Adolescent Health). January 2010.
- OPEN/net. NC Child Health Report Card. April 2008.
- OPEN/net. Health Literacy. January 2008.
- NC Voices: Skipping Health Insurance, WUNC radio (Uninsured). October 2007.
- News and Views, with Chris Fitzsimon (Uninsured). September 2007.
- North Carolina News Network (Uninsured). August 2007.
- WUNC News (Uninsured). August 2007.
- Carolina Journal Radio (Pandemic Influenza). June 2007.
- Charlotte Talks, WCPE Radio (Child Health Report Card). October 2006.

TEACHING

Classes Taught

University of North Carolina

HPM 881 (Linear regression)

Spring 2012 (36 students); Spring 2013 (approx 35 students); Spring 2014 (approx 39 students); Spring 2015 (approx 38 students); Spring 2016 (approx 28 students); Spring 2017 (approx 40 students)

HPM 880 (Math and Stata review)

Spring 2012 (36 students); Spring 2013 (approx 35 students); Spring 2014 (approx 39 students); Spring 2015 (approx 38 students); Spring 2016 (approx 28 students); Spring 2017 (approx 40 students) Spring

East Carolina University

ECON 2113 (Principles of Microeconomics)

Fall 1999 (56 students, 58 students); Spring 2000 (24 students); Fall 2001 (61 students);
Spring 2002 (113 students); Fall 2002 (64 students); Fall 2003 (102 students, 62 students)

ECON 3144 (Intermediate Microeconomics)

Fall 2000 (45 students, 35 students)

ECON 3323 (Topics: Economics of Education)

Fall 2001 (52 students); Fall 2002 (47 students); Fall 2003 (102 students)

ECON 6302 (Econometrics II)

Spring 2000 (14 students); Spring 2002 (21 students); Spring 2003 (17 students)

Graduate Student Committees

PhD Students

Chair

- Jesse Lichstein: Provider Practice Spillover: Medical Home Benefits in a Non-Target Population? (PhD Committee Chair, 2011-2014)
- Kimberly Heard Geissler: Changes in Health Care Access and Utilization in the US-Mexico Border Region (PhD Committee Chair 2012-2014; Member 2011-2012)
- Lisa Selker: Unpacking the Black Box: Do patient and prescriber characteristics predict variation in post-boxed warning prescribing? (PhD Committee Chair, 2013-2020)
- Ryan Kandrack: Promise and performance of primary care vertical integration: Effects on spending, utilization and quality of care for Medicare beneficiaries (PhD Committee Chair, 2019-2021)
- Hannah Friedman: Quality of Care and Hospital Bypass Among Rural Heart Failure Patient (PhD Committee Chair, 2021-2023)
- Nick Moloci (PhD Committee Chair, 2022-)
- Mukesh Adhikari (PhD Committee Chair, 2023-)

Member

- Maria Stevens: The influence of vulnerability on the treatment and outcomes for opioid use disorder among people who present to the emergency department with an opioid-related diagnosis (PhD Committee Member, 2021-2023)
- Tyler Malone: Effects of Affordable Care Act Provisions on Harmful Substance Use Among Young Adults (PhD Committee Member, 2021-2023)
- Victoria Peterman (PhD Committee Member, 2019-2021)
- Kate Miller: Effects of Social and Financial Supports on Veterans who are caregivers: Physical Health, Mental Health, and Economic Status (PhD Committee Member, 2018-2021)
- Rebecca Whitaker: A Study of Preventable Hospital Utilization among Medicaid-Insured Pediatric Patients in North Carolina's Federally Qualified Health Centers (PhD Committee Member, 2016-2019)
- Brystana Kaufman: Medicare Shared Savings Program: Patient Outcomes Following Ischemic Stroke (PhD Committee Member, 2016-2018)
- Charles Muiruri: Quality of Cardiovascular Disease Prevention for People Living with HIV in the United States (PhD Committee Member, 2015-2017)
- Rachel Dolin: Drivers of live discharge from the Medicare hospice program: A Mixed methods study. (PhD Committee Member, 2014-2017)
- Rachel Machta: Unpacking Transitional Care: Facilitators, Barriers, and Quality Impacts of a Multidisciplinary Program To Reduce 30-Day Readmissions. (PhD Committee Member, 2013-2015)
- Andrew Roberts: Optimizing the Public Health Benefit of a Medicaid Controlled Substance Lock-In Program. (PhD Committee Member, 2013-2015, DPOP)
- Matthew Toth: Rural-Urban Differences in Readmissions (PhD Committee Member, 2013-2015)
- Emily Gillen: Choosing an Affordable Care Act exchange plan (PhD Committee Member, 2013-2015)
- Kathleen Miller: The Signaling Effects of FDA Drug Designations. (PhD Committee Member, 2013-2015)
- Marisa Morrison: Medicaid expansion programs: effects on Medicaid enrollment and healthcare employment(PhD Committee Member, 2013-2015)
- Mike Belden: Organizational and Geographic Determinants of African American Participation in Clinical Treatment Trials (PhD Committee Member, 2013-2015)
- Ila Broyles Community v. Facility Long-Term Care: Impact on Medicare Spending and Service Use(PhD Committee Member, 2012-2014)
- Lindsey Haynes-Maslow: Access to Healthy Foods: A Mixed-Methods Approach (PhD Committee Member, 2012-2014)
- Jeff Federspiel: The Role of Observational Methods in Evaluating Treatments and Policies for Cardiovascular Medicine (PhD Committee Member, 2011-2013)

- Saleema Karim: Magnet Recognition? Show me the Money (PhD Committee Member) (2011-2014)
- Yin Li: Primary Care Nurses: Their Value in the U.S. Primary Care System (PhD Committee Member (School of Nursing), 2011-2016)
- Elizabeth Ku†: The Health Impact Of Caring For Grandchildren On Grandparent Caregivers: A Longitudinal Study In Taiwan († informal *ad hoc* committee member; no formal role but providing limited input; 2011)
- Greg Boyer: Medicaid Home- and Community-Based Long-Term Care Services In the Age of Olmstead (PhD Committee Member, 2010-2013)
- Jennifer King: Variation in the Structure and Performance of Community Care of North Carolina (PhD Committee Member, 2010-2011)
- Stephanie Poley: Geographic and Temporal Variation in Knee Replacement Surgery: Provider or Population Driven? (PhD Committee Member, 2010-2011)

DrPH Students

Chair

Deus Mubangizi: Use of Learning Collaborative in the Implementation of Patient-Centered Medical Home Model in the State of Maryland: What are the Facilitators and Barriers? (DrPH Chair , 2013-2015)

Lisa Holbrook Ozaeta: Searching for Health Reform: How can non-profit hospitals utilize their ambulatory practices to satisfy their IRS mandated Community Benefit obligation and improve population health? (DrPH Chair, 2013-2015)

Member

Eduardo Benjamin Puertas: “Factors that Influence a Career Choice in Primary Care: a Mixed-methods Study Among Medical Students Starting the Social Service Program in Honduras” (DrPH Committee Member, 2014-2015)

Sebastien Woynar: The Impact Of Political Governance On Biomedical Research Performance: A Study Of 50 Countries. (DrPH Committee Member, 2009-2011)

Masters Students

Rachel Banawa (MSPH First Reader, 2020)

Emily Vreeland: “Understanding A Better Way An Analysis of Proposed Medicaid Financing Reforms” (MSPH First Reader, 2017)

Effie Wei: “Estimated Marketplace Plan Take-Up Rate and Its Relationship with Monthly Premium” (MSPH First Reader, 2017)

Andrea Bazakas: “Exploring the Financial Impact of Removing the Tax Exemption for North Carolina’s Non-Profit Hospitals” (MSPH First Reader, 2016)

Jenny Spencer: “Decomposing Age-Adjusted Mortality Disparities in Urban and Rural US Counties (1980-2010)” (MSPH First Reader, 2016)

Amy Stencil: “Assessment of User Adoption of careTRIAGE Technology at Community Care of North Carolina” (MSPH First Reader, 2015)

PhuongGiang Nguyen: “The Costs and Quality Trade-off: The association between price markup, profitability, and hospital length of stay” (MSPH Second Reader, 2014)

Kristin Moss: “A Rural Hospital Payment Framework Based on Cost Analysis” (MSPH Second Reader, 2014)

Alexandra Harris: “Access to Health Care for Migrant Farmworkers” (MSPH First Reader, 2013)

Caroleen Quach: “Rural-Urban Differences in Patterns of Care Among Medicare Beneficiaries” (MSPH First Reader, 2013)

Simon Neuwahl: “The impact of general surgeon supply on the risk of appendiceal perforation in North Carolina” (MSPH Second Reader, 2012)

Christine Kearsley: “The Other Yearly Checkup: Your Medicare Drug Plan” (MSPH Second Reader, 2011)

Alisha Bhadelia Ozmeral: A Comparison of the Audited Financial Statements of Critical Access Hospitals with Data Collected from the Medicare Cost Report and IRS Form 990 (MSPH Second Reader, 2011)

Julia Lerche: “Building on Employer-Sponsored Insurance: The Impact of a Subsidized Insurance Program for Low-Income Workers at Small Businesses in North Carolina”, (MSPH Second Reader, May 2008).

Brett Joyal (MS Chair): “Vote Production and Campaign Expenditures”, July 2003.

John Thomas (MS Chair): “Identifying Targets and Acquirers in Bank Mergers”, December 2001.

Shuang Chen (MS Chair): “The Effect of Physician Supply on Rural Community Health: 1980-1988”, July 2001.

Brandon Dunlop (MS Chair): “The Effects of SSI and DI on the Employment of the Disabled”, July 2000.

Advising and Mentoring

Academic Advising

Note: Parentheses note actual or projected graduation year.

MSPH: A. Mikall, S. Neuwahl (2012); S. Allen, M. McIntyre (2013); Joshi V., Bhaskar V., Callahan K. (2014)

PhD: L. Selker (2017); H. Wolff, R. Machta (co-adviser), (2016); R. Dolin (co-adviser) (2017); A. Hoffman (co-), K. Millbank (co-) (2020)

Mentoring

Note: Parentheses note years of mentoring in AHRQ National Research Service Award program.

Predocctoral: Josie Caves (2019-2021); Esita Patel (2017-2019); Dunc Williams (2014-2016); Matt Toth (2013-2015); Angela Stover (2010-2012); Ashley Kranz (2012-2013); Anne Beaubrun (2011-2013); Jennifer King (2010-2011); Stephanie Wheeler (2008-2010)

Postdoctoral: Callie Berkowitz (2022-2024); Joshua Herb (2019-2021); Chris Beadles (2012-2013); David Rosen (2010-2012); Molly DeMarco (2007-2009); Sophia Smith (2007-2008); Pam Spain (2005-2007)

Guest Lectures

2016-2017

Aug 2016 HPM 874 (Weinberger) “How to Succeed in the HPM PhD Program.”

Oct 2016 HPM 994 (Stearns) “Power Analysis”

Nov 2016 HPM 874 (Weinberger) “Training Programs”

Mar 2017 HPM 885 (Birken) “Choosing an estimator”

2015-2016

Aug 2015 HPM 874 (Weinberger) “How to Succeed in the HPM PhD Program.”

Oct 2015 HPM 994 (Stearns) “Power Analysis”

2014-2015

Aug 2014 HPM 874 (Weinberger) “How to Succeed in the HPM PhD Program.”

Sep 2014 HPM 754 (Silberman) “Factors Driving Healthcare Costs”

Oct 2014 HPM 873 (Bennett) “The Effect of Rural Hospital Closures on Community Economic Health”

Oct 2014 HPM 994 (Morrissey) “Power Analysis”

Nov 2014 PhyAsst 251 (Gradison, Duke) “Financing the US Healthcare System.”

2013-2014

Feb 2014 Anesthesiology Senior Resident Curriculum (Myers). “Economic Impact of Health Reform”

Feb 2014 HPM 885 (Weinberger). “Choice of Estimators: Bias vs. Imprecision”

Sep 2013 HPM 754 (Stearns and Hobbs) ”Ambulatory Care.”

Aug 2013 HPM 874 (Weinberger) ”How to Succeed in the HPM PhD Program.”

2012-2013

Jan 2013 PhyAsst 251 (Strand de Oliveira, Duke) ”Financing the US Healthcare System.”

Jan 2013 HPM 885 (Weinberger). “Bias, Precision, and Power”

Oct 2012 HPM 994 (Morrissey). “Power Analysis”

Oct 2012 HPM 870 (Biddle). “Emerging issues in health insurance”

Aug 2012 HPM 873 (Reeve). “Plasticity, dance cards, and rakes: modeling physician supply”

2011-2012

Apr 2012 HPM 496 (Weinberger). “From CER to state policy.”

Jan 2012 HPM 885 (Weinberger). “Bias, Precision, and Power”

Nov 2011 HPM 874 (Weinberger). “Research and Advocacy”

Oct 2011 HPM 994 (Morrissey). “Power Analysis”

Oct 2011 HPM 873 (Stearns/Reeve). “Self-management in heart failure: durability of multi-session education and effect modification by low literacy. ”

Oct 2011 HPM 870 (Biddle). “Value-based insurance design.”

2010-2011

Apr 2011 HPM 885 (Biddle). “Identifying Effective Financial and Operational Improvement Strategies .”

Apr 2011 PUBH 690 (Schenck). “Economic Analyses.”

Apr 2011 HPM 496 (Weinberger). “From CER to state policy.”

Nov 2010, HPM 715 (Stearns). “The Taxes of Sin: Do Smokers and Drinkers Pay Their Way?”

Oct 2010, HPM 874 (Weinberger). “An econo-centric perspective on health services research.”

Oct 2010, HPM 873 (Stearns). “Decomposing racial and ethnic disparities in postacute rehabilitation care.”

Oct 2010, HPM 872 (Morrissey). “Power analyses.”

Sep 2010, HPM 601 (Fried and Simms). “Projecting effects of complex policy changes.”

2009 and earlier

Oct 2009, HPM 873 (Stearns). “How Many Uninsured Are There? Projections During Turbulent Periods.”

Oct 2009, HPM 956 (Greene). “Developing Cost Estimates.”

Oct 2008, HPM 873 (Pink). “Clusters of Back Pain Care Seeking.”

Oct 2008, HPM 755 (Ricketts) “Healthcare Reform in the Old North State.”

Sep 2008, HPM 956 (Greene). “Developing Cost Estimates.”

March 2008, NURS 960 (Jones). “Economic Perspective on Health Services Research.”

October 2007, HPAA 873 (Pink). “Quality Initiatives.”

April 2006, HPAA 351 (Mayer). “More docs = fewer deaths? Not so fast.”

GRANTS AND CONTRACTS

Active

Evaluation of North Carolina Medicaid Transformation (PI: Holmes GM). Principal Investigator. NC DHHS, No Number. 9/2020-8/2024. \$10,813,317

Rural Health Research Center Cooperative Agreement Program (PI: Holmes GM). Principal Investigator. ORHP / HRSA, U1CRH03714. 9/2020-8/2024. \$2,800,000

UNC-CH Training Program in Health Services Research (PI: Holmes GM). Principal Investigator. AHRQ, 5 T32 HS000032. 7/2023- 6/2027. \$337,793

Identifying the Benefits of Health Navigators. (PI: Holmes GM). Principal Investigator. Kate B. Reynolds Charitable Trust. \$309,435

RADx-UP CDCC. (PI: Corbie G). Co-Investigator (Pilot Study Section Chair). NIH National Institute on Minority Health and Health Disparities (NIMHD) via Duke University. 5 U24 MD016258 -03. . 9/2020-6/2025 \$32,364,105

Rural Residency Planning and Development Technical Assistance Center UK6RH32513 (PI: Page). Co-Investigator. Federal Office of Rural Health Policy, HRSA 9/2022 – 9/2025 \$4,300,000

Ownership of Rural Hospitals: Current Profile and Effects of Mergers (PI:Malone). Co-Investigator. Laura and John Arnold Foundation. 1/2024-6/2025. \$401,362

Atlantic Coast Center for Infectious Disease Dynamics and Analytics (PI: Lessler) Co-Investigator. Centers for Disease Control and Prevention (CDC) 10/ 2023- 10/2028 \$8,847,366.00

Carolina Health Workforce Research Center (HWRC) (PI: Fraher). Co-Investigator. HRSA Bureau of Health Workforce 9/2022-8/2027. \$450,000

Structural factors Impacting community Violence (STRIVE): The Role of Minimum Wage, COVID-19, and Discrimination (PI: Ranapurwala). Advisor. DHHS Centers for Disease Control and Prevention (CDC) 9/2023-9/2026 \$399,847.00

North Carolina Institute of Medicine Research on Health Policy. (PI: Holmes). North Carolina Institute of Medicine (NCIOM) 7/2017-6/2024. \$1,028,870

Rapid Response to Requests for Rural Data Analysis and Issue Specific Rural Research Studies (PI: Pink) Co-Investigator. DHHS Health Resources and Services Administration (HRSA). \$500,000 7/ 2021-6/2026

Completed

UNC-CH Training Program in Health Services Research (PI: Holmes GM). Principal Investigator. AHRQ, 5 T32 HS000032. 9/1989 - 6/2023. \$483,921

Rural Health Research Center Cooperative Agreement Program (PI: Holmes GM). Principal Investigator. ORHP / HRSA, U1CRH03714. 9/2016-8/2020. \$2,800,000

Medicaid Analyses with Short Turnaround (MAST) (PI: Holmes GM.). Principal Investigator. NC DHHS, No Number. 8/2019-7//2024. \$400,000

Creating a Culture of Health in Appalachia: Disparities and Bright Spots (PI: Lane N). UNC Principal Investigator. Robert Wood Johnson Foundation, no number. 9/2015-12/2017. \$309,446.

National Collaborative for Bio-Preparedness. (PI: Holmes GM) Principal Investigator. Dept of Homeland Security, National Biosurveillance Integration Center, 2010-OH-122-000001. 6/2010-8/2017 \$3,175,793

Medicare Rural Hospital Flexibility Program Evaluation (PI: Moscovice I). Subcontract PI (2013-2016); Investigator (2016-2017). HRSA, U27RH01080 (Subcontract with University of Minnesota). 9/2013 - 6/2018. \$1,500,000.

Master Task Order: Assessment of Effectiveness and Efficiency of HRSA-Supported Programs-Operations, Outcomes and Performance and Analysis of Contextual/Policy Issues which may impact HRSA-Supported Activities (PI: Holmes GM). Principal Investigator. HRSA, HSH250201300026I, 9/2014-9/2018 (including option periods). \$2500 (IDIQ).

University of North Carolina Women's Interagency HIV Study (UNC WIHS). (PI: Adimora A). Investigator. NIH / NIAID, U01-AI103390-01. 1/2013-12/2017. \$582,263.

Master Task Order: Advisory and Assistance Services in the Areas of Health Care Financing and Medicare. (PI: Holmes GM). Principal Investigator. MedPAC, MEDPAC-11-R-0002. 10/2011 - 9/2016. \$0.

Rural Health Research Center Cooperative Agreement Program (PI: Holmes GM). Principal Investigator. ORHP / HRSA, U1CRH03714. 9/2012-8/2016. \$2,640,000

Developing Topic Briefs for Addressing Health and Health Care Disparities Research Priority Area I(PI: Holmes GM). Principal Investigator. PCORI, (no number), 3/2013-4/2014. \$96,716.

Medicare Rural Hospital Flexibility Program Evaluation (PI: Moscovice I). Subcontract PI. HRSA, U27RH01080 (Subcontract with University of Minnesota). 9/2008 - 8/2013. \$1,500,000

North Carolina IMPaCT: Advancing and Spreading Primary Care Transformation (PI: DeWalt DA). Investigator. AHRQ, U18HS020940. 9/2011 - 9/2013. \$999,961

An Open Source Model for Projecting Physician Shortages in the United States (PI: Fraher EK). Investigator. Physicians Foundation, 9600765. 7/2011 - 6/2013. \$749,726

American College of Surgeons Institute for Health Policy Research (PI: Ricketts TC). Investigator. American College of Surgeons, (no number assigned). 3/2008 - 12/2012. \$2,525,633

Cardiovascular Outcomes Research Center (CORC) for the Atherosclerosis Risk in Communities (ARIC) Study (PI: Stearns SC). Investigator. NHLBI HHSN268201100012C. 11/2010-11/2016. \$378,714.

Long term care setting and Medicare expenditures: An instrumental variables approach. (PI: Holmes GM). Principal Investigator. Institute on Aging Pilot Research Program, (no number assigned). 3/2012 - 12/2012. \$19,499.

CCNC and the State Health Plan. (PI: Holmes GM). Principal Investigator. UNC Committee on Research Leaves, (no number assigned). 1/2012-12/2012. \$7500.

Expert Panel on Outpatient Therapy (PI: Holmes GM). Principal Investigator. MedPAC, MEDPAC-11-R-0002. 6/2012 - 8/2012. \$11,135

Expert Panel on Serious Mental Illness (PI: Holmes GM / Domino ME). Lead Principal Investigator. MedPAC, MEDPAC-11-R-0002. 6/2012 - 8/2012. \$19,247

Rural Health Research Center Cooperative Agreement (PI: Holmes GM). Principal Investigator. ORHP / HRSA, U1CRH03714. 9/2010 - 8/2012. \$1,320,000

Rapid Response to Requests for Rural Data Analysis and Issue Specific Rural Research (PI: Pink GH). Investigator. ORHP / HRSA, U1GRH07633. 9/2010 - 8/2012. \$87,500

North Carolina Institute of Medicine Research on Health Policy (PI: Silberman PC). Investigator. NC Institute of Medicine, (no number assigned). 10/2009 - 6/2011. \$614,115

Regional Quality Improvement Year 2 (PI: Holmes GM). Principal Investigator. Center for Health Care Strategies, 100423. 12/2008-5/2009. \$140,000

Revisions to Proposed Methodology for Designating Underserved Areas (PI: Ricketts TC). Investigator. BHP / HRSA, HSSH-2322007-14112P. 9/2008 - 12/2008. \$59,386

Rural Health Research Center-Cooperative Agreement Program (PI: Slifkin RT). Investigator. ORHP / HRSA, U1CRH03714. 9/2008 - 8/2010. \$1,320,000

Disparities in Post-Acute Rehabilitation Care (PI: Freburger JK). Investigator. NICHD / NIH, 5R21HD057980. 5/2008 - 4/2011. \$364,261

Regional Quality Improvement Year 1 (PI: Holmes GM). Principal Investigator. Center for Health Care Strategies, 100423. 5/2007-4/2008. \$100,000

Assessment of the financial status of Ashe Memorial Hospital (PI: Slifkin RT). Investigator. Golden LEAF Foundation, (no number assigned). 11/2007 - 3/2008. \$31,209

Impact Testing of the Proposed Revised Methodology for Designating Underserved Areas (PI: Ricketts TC). Investigator. BHP / HRSA, HSSH230200712101P. 4/2007 - 12/2007. \$98,472

Rapid Response to Requests for Rural Data Analysis and Issue Specific Rural Research (PI: Slifkin RT). Investigator. ORHP / HRSA, U1GRH07633. 9/2006 - 8/2009. \$1,050,000

Health Literacy and Self-Management in Heart Failure (PI: Pignone ME). Investigator. NHLBI / NIH, R01 HL081257. 9/2006 - 11/2012. \$786,360

Chronic Back and Neck Pain: Care Seeking and Evidence (PI: Carey TS). Investigator. NIAMS/NIH, R01 AR051970-01A1 . 9/2005-8/2008. \$787,130

Patterns of Care for Medicare Patients Receiving Cancer Treatment (PI: Holmes GM). Principal Investigator. National Patient Advocate Foundation, (no number assigned). 12/2004 - 3/2006. \$143,341

Evaluation Criteria and Weighting of Overall Criteria in the Requirements of Funding New Start and Expansion Grant Applications for Health Center. (PI: Ricketts TC). Investigator. Bureau of Primary Health Care / HRSA, HSSH-232- 2004-14022P. 10/2004-9/2006. \$94,937.

Medicare Rural Hospital Flexibility Program Evaluation (PI: Slifkin RT). Investigator. HRSA, U27RH01080 (Subcontract with U Minnesota). 9/2003 - 8/2008. \$1,500,000

Development of a New Measure of Dental Underservice (PI: Ricketts TC). Investigator. Bureau of Health Professions, HRSA, US DHHS, 230-03-0012. 9/2003-9/2005. \$463,602.

Development of a Proposed Rule for Designating Underserved Areas (PI: Ricketts TC). Investigator. Bureau of Primary Health Care, HRSA, 5-U1C-RH- 00027-02. 1/2001-1/2003. \$235,000.

SERVICE

2023/10 ZHS1 HSR-B (01), AHRQ Special Emphasis Panel, June 2023

ZRG1-HSS-D (90) , March 2024

Chair, Community Collaboration Mini-Grant Program (C2G), RADx-UP, 2021-2023

Advisory Boards and Associations

2024-present Government Affairs Committee, National Rural Health Association

2023-present Health Improvement Advisory Council, Kate B. Reynolds Charitable Trust

2022-present CaroNova Advisory Board

2020-present AcademyHealth Education Council

2019-2023 National Advisory Committee for Health and Human Services, HRSA, US HHS

2010-2013 Institute for Emerging Issues Advisory Issue Council for Health

2010-present Economic Impact of Healthcare-Associated Infections Subgroup,
Healthcare-Associated Infection Advisory Group

2010-2013 North Carolina Metamorphosis Project

2010-2011 American Physical Therapy Association Advisory Panel on Research

2009-2010 CCNC-UP Steering Committee

2009-2011 Healthy and Ready to Learn Steering Committee

2006 Institute for Emerging Issues, Economic and Community Development Working Group

Editorial Boards

2006-present *North Carolina Medical Journal*

Associate Editor (2006-present)

2010-2014 *Journal of Rural Health*

Chair (2013-2015); Policy and Procedures Committee (Chair, 2011); Finance Committee (Chair, 2012)

Journals Refereed

Applied Health Economics and Health Policy

Health Policy

Health Services and Outcomes Research Methodology

Health Services Research

Inquiry

JAMA

Journal of Applied Gerontology

Journal of General Internal Medicine

Journal of Rural Health

Neurology

North Carolina Medical Journal

Physical Therapy

Southern Economic Journal

Teaching and Learning in Medicine

Department Service

University of North Carolina

Chair Search Committee, 2023

PhD Program Advisory Committee, 2011-

HPM Research Committee, 2016-

Faculty Search Committee, Health Care Organization and Management, (Chair), 2014-2015

Chair Search Committee, 2011-2013

Department Executive Committee, 2011-2016

Interviewer, Spine Surgery candidate, Department of Neurosurgery, 2011

State Employees Combined Campaign Team Captain, 2009

Shepster of the Month Selection Committee, 2004-2006

Staff Liaison Committee, 2004-2006

East Carolina University

ECU Faculty Senator, 2002–2003

Chair, Department of Economics Research and Technology Committee, 2001–2003

Departmental Webmaster, 2001–2003

Member, Department of Economics Research and Technology Committee, 1999–2001

School Service

Search Committee Chair, Chair of Epidemiology (2023-)

Appointment, Promotions, and Tenure Committee, 2022-present (Chair 2023-)

Research Council, 2020-present

Organizational Development Plan Task Force, 2016

Strategic Themes Committee, 2015-2016

Review Committee, Chair of PHLIP, 2015

University Service

Search Committee Chair, Director of Highway Safety Research Center, 2017-2018

Search Committee, Director of Frank Porter Graham Child Development Center, 2016-2017

UNC Center for Rural Health Research and Practice Working Group, 2012-2013

Carolina Family Scholarship, 2012

Public Service

Member, Technical Advisory Group, North Carolina Department of Insurance, 2011-2012

Judge, *Triangle Business Journal* Health Care Heroes, 2009.

Co-Chair, Evaluation Committee, Care Share Health Alliance, 2009.

Commission Member, Advisory Commission on Hospital Infection Control and Disclosure, 2007.

Board Member, North Carolina Health Insurance Risk Pool, 2007-2013.

Member (ex-officio), Steering Committee, North Carolina Institute of Medicine Task Forces on Ethics and Pandemic Influenza, Primary Care and Specialty Supply, Health Literacy, Chronic Kidney Disease, Substance Abuse Services, Health Access, Transitions for People with Developmental Disabilities, Adolescent Health, Prevention: 2005-2010.

Member, Steering Committee, North Carolina Institute of Medicine Task Force on Increasing Coverage of the Uninsured, 2004

Member, Steering Committee, North Carolina Institute of Medicine Task Force on the North Carolina Health Care Safety Net, 2004