



**The Methodist Le Bonheur Center for
Healthcare Economics**

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Methodist Le Bonheur Center for Healthcare Economics

Annual Report for June 2017 - May 2018

June 25, 2018

As in previous years, this year's annual report of the Methodist Le Bonheur Center of Healthcare Economics begins with a description of the mission, history, and objectives of the Center. The rest of the Annual Report summarizes the Center's specific goals, objectives, and major accomplishments for the just completed 2017-18 academic year. Finally, the goals and objectives for the 2018-19 academic year are presented.

Mission and Brief History: In March 2003, Methodist Le Bonheur Healthcare, Inc., and the Urban Child Institute (formerly the LHS, Inc.) gave the University of Memphis a donation of \$1.0 million to establish The Methodist Le Bonheur Center for Healthcare Economics (hereafter the Center or MLCHE) in the Fogelman College of Business and Economics. The mission of the Center is to address complex health care issues of efficiency, effectiveness, and equity with a focus on emerging health care issues that affect Memphis, Shelby County, and the state of Tennessee.

Objectives: Through a variety of research, instruction, and public service programs, the Center works closely with entities both internal and external to the University to accomplish its mission and objectives. In the near term, the key policy objectives emphasized by the Center will include, among other topics:

1. Evaluation of health care programs, such as health care reform, TennCare, and health care workforce growth, and the development of strategies and solutions for improving the quality and efficiency of health care delivery;
2. Analysis of regional and state health economic trends;
3. Assistance to stakeholders such as hospitals, nursing homes, and health plans in developing market analyses and business plans; and
4. Dissemination of best practice models to assist employers in the development and implementation of cost-effective strategies for improving employee health and saving health care costs.

Expertise: The Center is supported by a superb group of faculty associates who have distinguished themselves in the fields of health care economics and health care administration. These faculty associates are experts in conducting research in a wide range of critical health care issues including:

- Access to health care
- Health insurance coverage
- Health care costs and inefficiencies
- Adoption and use of eHealth by providers and mHealth by consumers
- Health and health care disparities
- Economic impact analysis
- Mental health and opioid abuse
- Cost effectiveness analysis of health care programs and interventions
- Quality improvement in health care
- Employee health benefits
- Hospital cost management
- Methodological issues in data collection, analysis, and management

Specific Goals and Objectives of the Center for 2017-18

Goal 1: Explore external opportunities

Objective 1.1 - Promote visibility through outreach and exchange

- ALSAC/St. Jude Children's Research Hospital
 - Met and discussed with ALSAC Marketing executives and staff opportunities for collaboration.
 - Offered to provide expertise and advisory service on nonprofit management and fundraising issues and projects.

- The Bureau of TennCare
 - Contacted the Office of the Medical Director of the Bureau of TennCare to discuss research opportunities on issues relating to the health and health care of Medicaid beneficiaries in Tennessee.
 - Explored ways to collaborate in the design and implementation of an evaluation of Tennessee's Health Innovation Initiative, a state-level health payment reform program initiated by Governor Bill Haslam and funded by a State Innovations Models (SIM) grant awarded by the Centers for Medicare and Medicaid Services.

- Methodist Le Bonheur Healthcare
 - Collaborated with the Corporate Office of Methodist Le Bonheur Healthcare in providing expertise and technical assistance on a wide range of potential projects.
 - Projects included an analysis of the revenue impact of the Affordable Care Act (ACA) and the economic impact of Methodist Le Bonheur Healthcare on state and local economies.

- Common Table Health Alliance (CTHA)
 - Worked closely with CTHA in developing community health research projects of mutual interest.
 - Shared and exchange health care data and analytical results for mutual benefits.

- United Way of Mid-South
 - Met with research staff of United Way of Mid-South to discuss issues related to the concentration of poverty in Memphis and the Mid-South and opportunities for collaboration.

- The Memphis Business Group on Health:
 - Partnered with this Memphis area business coalition that facilitates the effective and efficient purchases of health services in a series of joint efforts

for promoting workplace health promotion and cost-effective disease management programs.

- Christ Community Health (CCH)
 - Established and maintained a close working relationship with CCH to explore ways to collaborate on mutually beneficial community outreach projects, with a focus on population health and patient-centered primary care.

- University of Tennessee Health Science Center (UTHSC)
 - Worked closely with researchers and administrators on a variety of projects including:
 - Business and strategic opportunities and challenges.
 - Assisted in the design and development of a business plan for a proposed state-of-the-art pharmaceutical compounding and manufacturing facility.

Objective 1.2 - Develop collaborative relationships

- The Sycamore Institute of Nashville, Tennessee
 - Explored collaboration opportunities with this Nashville-based bipartisan health policy think tank.
 - Invited the CEO of the Sycamore Institute and its Policy Analyst to The University of Memphis for an exploratory meeting to discuss projects of mutual interest and to participate in a Health Care Research Journal Club meeting sponsored by MLCHE.
 - Provided research assistance and analytical expertise on projects and analyses of mutual interest.

- Daya Medicals Inc. of Waterloo, Canada
 - Explored collaboration opportunities with Daya Medicals, Inc., a leading provider of mobile medical devices and patient-centric data analytics.
 - Discussed the health care landscape in the Memphis market and explored a potential partnership that would allow Daya Medicals to engage UofM faculty and graduate students in research collaboration, innovation design, market expansion and partner development activities.

- Methodist Le Bonheur Healthcare
 - Collaborated with the Corporate Office of Methodist Le Bonheur Healthcare by providing expertise and technical assistance on a wide range of issues and projects. Specific projects included:
 - Analyzed health and financial implications of Governor Haslam’s Insure Tennessee Program and evaluate the arguments for and against this market-driven alternative to the Medicaid expansion program made possible under the Affordable Care Act.

- Participated in ongoing transformation of Methodist primary care network and practices into NCQA recognized Patient Centered Medical Homes by providing advice and technical expertise.
- Worked closely with physician and non-physician researchers on innovation projects for potential submissions of research proposals.
- University of Tennessee Health Science Center (UTHSC)
 - Worked closely with UTHSC researchers and administrators on a variety of academic and engaged research projects including:
 - Explored funding opportunities for timely and innovative fundable research projects.
 - Met and interacted with pediatric faculty members and researchers to explore opportunities to collaborate on research projects of mutual interest. Made substantial progress in the discussion of potential projects and preparation of research proposals for submission to the Centers for Medicare and Medicaid Services.
- Mississippi State University
 - Met and discussed at length on research projects of mutual interest with researchers from the Mississippi Center for Health Workforce at Mississippi State University.
 - Possible projects included the development of a need assessment for Advanced Practice Registered Nurses (APRN) as a potential solution to the emerging primary care physician shortage in Tennessee.
- The Memphis Business Group on Health
 - Partnered with this Memphis area business coalition that facilitates the effective and efficient purchases of health services in a series of joint efforts for promoting workplace health promotion and cost-effective disease management programs

Objective 1.3 - Plan, prepare and submit research grant and service contract proposals for external funding

- The Urban Child Institute (UCI) of Memphis, Tennessee
 - Actions:
 - Dr. Cyril Chang, the Director of MLCHE, continued his service as a UoM representative to the Board of the Urban Child Institute (UCI), a charitable nonprofit organization dedicated to the improvement of health and well-being of children in Shelby County, Tennessee.
 - Dr. Chang, along with Dr. Loretta Rudd of the UoM University College, worked closely with the UoM Office of Development and the Office of the Provost, in the planning and development of a request of \$2 million of funding support from the Urban Child Institute.

- The request this year focused on high-impact early childhood research projects and the establishment of an altruism research and treatment center to meet the needs of underserved altruistic children in the Memphis market area.
- Results:
 - The University of Memphis was awarded more than \$1.9 million of research funding support from UCI in April 2018 for FY2019.
 - Provided advice and worked closely with UCI administrative staff in the development of a new 3-year strategic plan for UCI that included the designation of Le Bonheur Children’s Hospital, UTHSC and UoM as three “supported institutions” to receive future funding support.
- Tennessee Action Coalition
 - Action: A research proposal was submitted by MLCHE to the Tennessee Action Coalition (\$50,000) to conduct a 3-phase study of the economic impact of expanded practice role of advanced practice nurses in Tennessee.
 - Results: MLCHE was awarded \$14,352 for Phase I analysis in September 2015 with Dr. Chang serving as the PI, \$22,986 for Phase II work in June 2016, and \$9,843 for Phase III work in January 2018.
- University of Tennessee Health Science Center
 - Action: Submitted an invited proposal to study the state-wide economic impact of the flagship medical school of Tennessee, the University of Tennessee Health Science Center.
 - Result: The Center was awarded \$39,859 by the University of Tennessee Health Science Center to conduct the contracted economic impact study.
- Additional state and local grants
 - Actions: Submitted research proposals to a variety of nonprofit, state and local foundations and funding agencies.
 - Results: Received the following grants and awards (past 3 years):
 - 2016-17 A service contract, “Baptist Healthcare-The University of Memphis Healthcare Executive Leadership Institute,” of \$204,784 for a leadership training program that took place in the spring and summer of 2017.
 - 2015-16 A subcontract grant (\$91,650) for a cost analysis of the Le Bonheur Asthma Project and an economic feasibility study of

organizing a dedicated asthma unit in the Le Bonheur Children's Hospital as an alternative to the more expansive ER care.

2014-15 A research project funded (\$42,000) by the University of Tennessee Health Science Center to conduct an economic impact study of both funded and proposed major capital projects envisioned in a new UTHSC Campus Master Plan.

Objective 1.4 Explore consulting opportunities

- Christ Community Health Services of Memphis, Tennessee
 - Actions: Explored consulting opportunities with Christ Community Health Services to offer expertise and analytical service to assist this one of the only two Federally Qualified Community Health Centers in the greater Memphis area with their research and data analysis needs.
 - Result: Discussion and negotiation ongoing.
- Tennessee Rural Health Partnership
 - Actions: Explored and discussed collaboration opportunities with Tennessee Rural Health Partnership and Tennessee Hospital Association with a focus on (a) rural health workforce shortages, (b) economic and health care implications of workforce shortages, and (c) the different pathways to a better solution for rural health care challenges.
 - Result: A service contract under negotiation.
- Methodist Le Bonheur Healthcare
 - Action: Worked closely with the Corporate Office of Methodist Le Bonheur Healthcare, Le Bonheur Children's Hospital, and Methodist College of Nursing in providing expertise and technical assistance on a wide range of research and operational issues and projects.
 - Result: Discussion and negotiation ongoing.

Goal 2: Study and analyze health economic trends and issues

Objective 2.1 Study emerging health care issues in Tennessee and the Mid-South Region

Actions and Results:

- Action: Gathered and analyzed relevant data on the impacts of Affordable Care Act (ACA) on health and health care delivery in Tennessee and to identify potential adverse effects on the pending repeal and replacement of ACA for purpose of state-wide dissemination.

- Results: A series of Health Care Issue Briefs and occasional topical reports prepared and released by MLCHE (Last three years; online available at: <http://www.memphis.edu/mlche/academics/publications.php>):
 1. Chang, C. F. and Mirvis, D.M. “The Economic Impact of Advanced Practice Nurses and Benefits of Expanding Their Scope of Practice in Tennessee: An Analysis of Local and State-Level Effects.” The Methodist Le Bonheur Center for Healthcare Economics, the University of Memphis, November 2017.
 2. Mirvis, David M. and Chang, C. F. “Uncompensated Care in Tennessee: What are the Costs?” The Methodist Le Bonheur Center for Healthcare Economics, the University of Memphis, March 2016.
 3. Mirvis, David M. and Chang, C. F. “Employer-Sponsored Health Insurance: What’s Happening in Tennessee?” The Methodist Le Bonheur Center for Healthcare Economics, the University of Memphis, November 2015.
 4. Mirvis, David M. and Chang, C. F. “Health Insurance Exchange: Who in Tennessee Has Enrolled?” The Methodist Le Bonheur Center for Healthcare Economics, The University of Memphis, October 2015.
 5. Mirvis, David M. and Chang, C. F. “Variations in Healthcare Charges: Does Anyone Know How Much It Will Cost? The Methodist Le Bonheur Center for Healthcare Economics, the University of Memphis, August 2015.
 6. Mirvis, David M. and Chang, C. F. “Primary Care in Tennessee: The Gap between Demand and Physician Supply.” The Methodist Le Bonheur Center for Healthcare Economics, the University of Memphis, July 2015.

- Actions: Analyzed hospital utilization and emergency department visits and prepare issue briefs and occasional topical reports.

Result: Published Health Care Issue Briefs and occasional reports (Last 3 years; online: <http://www.memphis.edu/mlche/academics/publications.php>).

- Powell, P. M., Xinhua, Y., Isehunwa, O., and Chang, C. F. “National Trends in Hospital ED Visits among Those with and without Multiple Chronic Conditions,” Hospital Topic. Advance online publication, Aug. 16, 2017. doi 10.1080/00185868.2017.1349523.
- Chang, Cyril F., “Visitors to Hospital Emergency Rooms: Who, Why, and How Much Do They Cost?” The Methodist Le Bonheur Center for Healthcare Economics, the University of Memphis, July 2015.
- Chang, Cyril F. Powell, M Paige, and You, Xinhua, “Common Myths About Hospital ED Use and Overcrowding,” The Methodist Le Bonheur Center for Healthcare Economics, the University of Memphis, June 2015.

Objective 2.2 Prepare and publish in peer-review journals to contribute to the research literature

Actions and Results:

- Actions: Prepared and submitted manuscripts to peer-reviewed academic journals.
- Results: Submitted and published the following peer-reviewed articles in the 2017-18 Academic Year by Dr. Cyril Chang and researchers affiliated with the Center:
 1. Mahmood AQ, Bhuyan S, **Chang CF** et al. Role of physician compensation models on service utilization in ambulatory care settings in the United States,” under preparation for Health Services Research.
 2. Kedia SK, Escareno J, **Chang CF** et al., Comparative Effectiveness of Intervention Programs to Increase Mammography Awareness and Screening among African American Women in the United States, under review at Breast Cancer Research and Treatment.
 3. Kim H, Powell PM, **Chang CF** et al. Influence of Electronic Access to Personal Health Records on Breast Cancer and Cervical Cancer Screening among Women with a Family History of Cancer, under review at Preventing Chronic Disease, a CDC sponsored journal.
 4. Kim, Hyunmin, Powell, PM, **Chang, CF** et al. “Examining preschoolers' use of mental health services: An application of the Behavioral Model for Vulnerable Populations,” under review at Journal of Child and Family Studies.

5. Kim, Hyunmin, Powell, P M, **Chang, CF** et al. "Examining Preschoolers' Use of Mental Health Services Using the Behavioral Model for Vulnerable Populations," under review at The Journal of Behavioral Health Services & Research.
6. Bhuyan, SS, Kim, H., **Chang, CF** et al. "Privacy and Security Issues in Mobile Health: Current Research and Future Directions," under review at the Journal of American Medical Informatics Association.
7. Bhuyan, SS, Isehunwa, OO, **Chang, CF** et al." The Role of Gender in Cost-Related Medication Non-adherence among Patients with Diabetes," forthcoming in the Journal of American Board of Family Medicine.
8. Bhuyan, SS, Kedia S, **Chang, CF** et al., "Insurance Status and Cost of Emergency Department Care for Pediatric Patients with Asthma: An Analysis of the Medical Expenditure Panel Survey Data, forthcoming in Clinical Pediatric Emergency Medicine.
9. Isehunwa, OO, Carlton EL, **Chang, CF** et al., "Access to employee wellness program and use of preventative care services among working adults in the United States," The American Journal of Preventive Medicine, 2017 Dec;53(6):854-865.
10. Kim H, Powell MP, **Chang CF** et al. Mobile Health Application and e-Health Literacy: Opportunities and Concerns for Cancer Patients and Caregivers. Journal of Cancer Education, 2017 Nov 14.
11. Powell, PM, Xinhua, Y, Isehunwa, O, and **Chang, CF** "National Trends in Hospital ED Visits among Those with and without Multiple Chronic Conditions," Hospital Topic. Advance online publication, Aug. 16, 2017.
12. Bhuyan, SS, Kim, H, **Chang, CF** et al., "Privacy and Security Issues in Mobile Health: Current Research and Future Directions: Current Research and Future Directions," Health Policy and Technology, 2017.
13. Bhuyan, SS, Kedia S, **Chang, CF** et al. "Does Cost-Related Medication Nonadherence among Patients with a Cardiovascular Disease Depend on Gender? Evidence from a National Representative Sample," Women's Health Issues, 2017 January–February; 27(1): 108–115.

Goal 3: Increase visibility of the Center within the University of Memphis and in the external Memphis health care community

Objective 3.1 Engage in collaborative research and service activities with health-related units/departments across the University of Memphis campus to promote engaged research

Actions and Results:

- Action: Building on the success and momentum from previous academic years, The Methodist Le Bonheur Center of Healthcare Economics (MLCHE) continued to organize and hold monthly interdisciplinary research seminars under the funding support of Health Care Research Journal Club.
- Result: A total 6 well attended seminars were held in 2017-2018. Speakers of the seminar sessions were well-known researchers and practitioners such as Susan Cooper of Regional One Health and Cristie Upshaw Travis of the Memphis Business Group on Health who are familiar with current health care delivery challenges and issues. Topics ranged from drug abuse and the opioid crisis to hospital quality and to population health. In addition to their education value, the well-attended seminars also provided a forum for health care practitioners and university researchers to network and exchange research ideas.

Objective 3.2 Provide research opportunities and assist in the development of a richer research environment

- Actions: Serving as a campus resource, MLCHE provided leadership and resources to promote health care research among faculty researchers and graduate students.
- Results:
 - Provided competitive faculty summer research grants totaling \$23,000 to encourage health care research in the Fogelman College of Business and Economics and the UoM School of Public Health
 - Offered travel funds for faculty members and graduate students to attend health care conferences
 - Sponsored healthcare speakers for research seminars
 - Provided graduate and undergraduate internships to work on health care projects

Objective 3.3 Serve the external health care community in the greater Memphis area

Actions and Results:

- In the 2017-18 Academic Year, Dr. Cyril Chang continued his service to the Board of Directors of the Urban Child Institute. He served as a member of the Board Directors and was active as members of two of the Institute's standing committees: The Investment Committee that oversees the management of the Institute's investment portfolio of \$145 million and the Nomination Committee.

Objective 3.4: Engage print and other media outlets to promote the Center's visibility and outreach

- Engaged print media and contributed op-ed articles on TennCare and health-related topics:
 - Published newspaper op-ed page articles:
 - “Don't Forget the Real Pain Behind the Opioid Crisis,” The Memphis Commercial Appeal, June 3, 2018.
 - “Gutting Obamacare to Pay for Tax Cut,” The Memphis Commercial Appeal, December 17, 2017.
 - “A Bipartisan Approach to Repairing ObamaCare,” The Memphis Commercial Appeal, August 11, 2017
 - “Insurance Sales Across State Lines Sounds good If It Works,” The Memphis Commercial Appeal, April 22, 2017.
 - “Tennessee is Reforming Health Care without Partisan Warfare,” with James Baily, MD, The Tennessean, March 27, 2017.
 - “Can A Replacement Improve Upon the Affordable Care Act?” The Memphis Commercial Appeal, February 12, 2017.
 - “Health Benefits of Insurance Coverage Expansion are Certain,” with David M. Mirvis, The Memphis Commercial Appeal, September 04, 2016.
 - “Paul Ryan's Repeal and Replace Plan,” The Memphis Commercial Appeal, Jul6 10, 2016.
 - Newspaper Interviews:
 - Center Director Dr. Cyril Chang was interviewed by Newsweek reporter Mellissa Matthews and quoted in her byline story, “Weight Loss Saves Obese Adults Nearly \$30,000 According to Study,” in the U.S. Edition of Newsweek, 9/26/2017. Online: <http://www.newsweek.com/weight-loss-saves-obese-adults-nearly-30000-according-study-671859>.

- Featured and quoted at length in a Memphis Commercial Appeal article, dated March 7, 2017, by reporter Kevin McKenzie on President Trump's health care views.
 - Quoted at length by report Kevin McKenzie of the Memphis Commercial Appeal in a January 8, 2016, article, "Politics aside, Memphis girds to battle for governor's insure Tennessee Plan," for Dr. Chang's remarks on Gov. Bill Haslam's Insure Tennessee Plan made at a community forum on the campus at the Baptist Memorial Hospital.
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Goal 4: Promote wellness and health promotion programs for a healthier community

Objective 4.1 Initiate a wellness research program to gain new research knowledge and contribute to the research literature

Actions and Results:

- Contacted, met, and discussed projects of mutual interest with researchers with an interest in wellness research from the UoM School of Public Health
- Developed a multi-phase research plan to explore the effectiveness and cost effectiveness of employer-based wellness programs. This far, the efforts have resulted in the development of at least three research papers and the publication of a full-length, original contribution article in a high-impact, top ranked health services research journal:
 - Isehunwa, O. O., Carlton E. L., **Chang, C. F.** et al., Access to employee wellness program and use of preventative care services among working adults in the United States," forthcoming in American Journal of Preventive Medicine.

Objective 4.2: Develop working relationships with external partners and stakeholders to explore collaborative opportunities

Actions and Results:

- Contacted, met, and discussed projects of mutual interest with representatives from a wide range of community partners including:
 - Canadian medical technology company Daya Medicals, Inc.
 - Tennessee Department of Health
 - Shelby County Mayor's Office

- Memphis Fast Forward
- United Way of the Mid-South
- Congressman Steve Cohen's Office
- The Memphis Bioworks
- The Memphis Medical Society
- Common Table Health Alliance
- The Urban Child Institute
- The Methodist Le Bonheur Healthcare, Inc.
- The Regional Medical Center at Memphis
- The Memphis Business Group on Health
- College of Medicine, the University of Tennessee Health Science Center
- Colleges of Nursing and Pharmacy of the University of Tennessee Health Science Center
- Christ Community Health Care

Objective 4.3 Participate in community wellness and health promotion activities

Actions and Results:

- Worked with QSourceTM Tennessee, the Center for Healthcare Quality in Tennessee, in providing expertise in economic evaluation of health promotion and intervention programs
- Worked with the Memphis Common Table Health Alliance in promoting health and wellness of residents and employees of the greater Memphis area

Goal 5: Provide analytical expertise to external stakeholders

Objective 5.1 Provide technical assistance as a community resource on health care economics matters

Actions and Results:

- Offered expertise and *pro bono* consultation service to the Tennessee Department of Health
- Provided health insurance coverage and other data to a variety of external stakeholders including the Memphis newspaper The Commercial, Shelby County Government, the Memphis Common Table Health Alliance, Methodist Le Bonheur Healthcare, and numerous other business and civic entities and individuals.

- Worked with and provide business expertise to senior administrators of University of Tennessee Health Science Center on a wide range of strategic planning issues of mutual interest.

Primary Goals for 2018 - 2019 and Evaluation Metrics

Goal 1: Explore external opportunities

- Continue to promote visibility through outreach and exchange activities
- Plan, prepare, and submit grant proposals
- Explore consulting opportunities

Goal 2: Study and analyze health economic trends including the impacts of advanced practice nurses and the repeal and replacement of the Affordable Care Act in Tennessee and related state health reform issues

- Evaluate Tennessee's Health Innovation Initiative and payment reform program
- Measure the economic contributions of RNs and Advanced Practice Registered Nurses
- Continue the collection and analysis of data for Tennessee Hospital Data series and the publication of periodic Health Care Issue Briefs on issues relating to hospital admissions and opioid overdose, hospital ER visits, and rural hospital closing
- Collect and compile reliable TennCare data and documentation

Goal 3: Increase visibility of the Center within the University of Memphis campus and in the external Memphis Health Care community

- Manage the University of Memphis Health Care Research Journal Club as a forum for health policy discussion and exchange of ideas for practitioners in the health care community and academic researchers.
- Engage in collaborative research and service activities with health-related units/departments across the University to promote engaged research
- Serve the external health care community in the greater Memphis area
- Engage printed and other media outlets to promote the Center's visibility

Goal 4: Promote wellness and health promotion programs for a healthier community

- Develop a close working relationship with external partners and stakeholders to explore collaborative opportunities
- Participate in community wellness and health promotion activities

Goal 5: Provide analytical expertise to external stakeholders

- Provide technical assistance to external stakeholders such as Methodist Le Bonheur Healthcare, Baptist Health Care, Common Table Health Alliance, The Urban Child Institute, and major local employers

End of Report

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