

The Maryland Learning Collaborative: Evaluation Summary

Background

In 2014, the Centers for Disease Control and Prevention's (CDC) Division for Heart Disease and Stroke Prevention (DHDSP) sought to identify state health departments that put into action promising strategies to reduce the effect of heart disease on population-level health outcomes. CDC selected the Maryland Department of Health and Mental Hygiene (MDHMH), and specifically, the Maryland Learning Collaborative (MLC) to participate in a 15-month enhanced evaluability assessment (EEA). The EEA is an expedited evaluation that fulfills an important gap for reportable and actionable findings in a relatively short timeframe.¹

Key Features of an Enhanced Evaluability Assessment (EEA)

- ✦ 15-Month Timeline
- ✦ Provides Timely Feedback to Stakeholders
- ✦ Maximizes the Use of Existing Data

Description of the Maryland Learning Collaborative

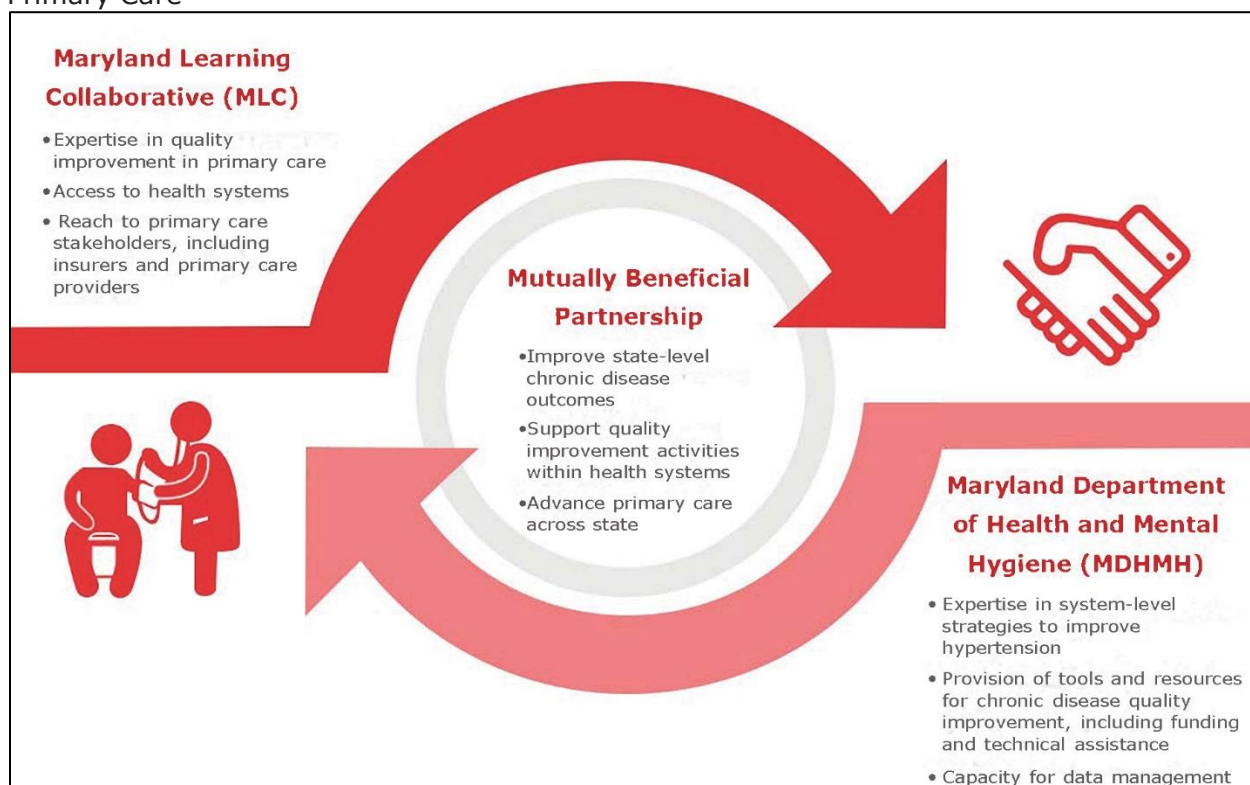
The MLC is a statewide collaborative learning model created to support primary care practices participating in a pilot to carry out the patient-centered medical home model across the state. The MLC plays a key role to support the efforts of 52 practices on various continuous quality improvement initiatives; provide technical assistance, training, and support; and work collaboratively with practices to optimize and enhance data collection, management, and reporting processes.

In 2013, MDHMH's Center for Chronic Disease Prevention and Control (CCDPC) pursued a partnership with the MLC because of its extensive reach among various health systems and primary care providers throughout the state, as well as its expertise in system-level quality improvement. As depicted in the Exhibit, the collaboration was mutually beneficial to both organizations. CCDPC provided the MLC with funding, technical assistance, tools, and resources necessary to put chronic disease-focused quality improvement activities into action. By implementing these activities, the MLC contributed to CCDPC's ability to reach its target audience of health systems and primary care providers throughout the state of Maryland, while also working to achieve CCDPC's overall goals.

¹ Losby JL, Vaughan M, Davis R, Tucker-Brown A. Arriving at results efficiently: using the Enhanced Evaluability Assessment approach. *Prev Chronic Dis*. 2015;12:.150413. doi: <http://dx.doi.org/10.5888/pcd12.150413>



Exhibit. Collaboration Between Maryland Learning Collaborative and Maryland Department of Health and Mental Hygiene for Improved Chronic Disease Prevention and Control in Primary Care



Methods

The EEA used a mixed-method design comprising two main constructs: 1) implementation effectiveness and 2) program effectiveness. To address implementation effectiveness, the evaluation team conducted document reviews and in-depth group interviews to identify the key components of the MLC and the partnership between the MLC and CCDPC. Interviews were conducted with individuals representing the MLC, CCDPC, and clinical staff members from practices that participated in the MLC (e.g., practice champions, care managers, medical assistants). The program effectiveness component was addressed via quantitative analysis of secondary annual clinical quality measure data from participating MLC practices (52 practices in 2011–2013 and a subset of measures from 17 practices in 2014) to examine changes in clinical processes and health outcomes at the practice level.

Key Evaluation Findings

Key findings for both implementation effectiveness and program effectiveness are described below.

Implementation Effectiveness

Fifty-two primary care practices across 17 counties participated in the MLC. The core components of the MLC were identified as senior leadership; strategic partnerships;

formalized patient-centered medical home recognition process and accreditation; continuous training, technical assistance, and support; and to optimize the use of health information technology to enhance data collection, management, and reporting. The MLC's partnership with CCDPC facilitated activities centered on quality improvement for hypertension control. Other factors to implement the MLC included continued engagement of leadership; access to a wide range of partners; use of evidence-based guidelines and nationally recognized clinical measures for reporting; and understanding the varying level of capacity among practices to implement team-based care principles and report data on an annual basis.

Primary care providers and support staff found the MLC's series of trainings related to hypertension management and control useful and implemented these strategies within practices. Practice and patient characteristics were the main factors reported to affect putting into action hypertension control-related quality improvement activities within primary care. For example, smaller practices (e.g., one or two primary care providers) were more adept at making changes to practice protocol to improve the way hypertensive patients were identified and managed (e.g., involve medical assistants in the process of blood pressure measurement and promotion of blood pressure self-management). Larger health system practices often had to go through hierarchies before a process-oriented change could be made, which delayed quality improvement activities. Patient characteristics such as socioeconomic and cultural factors were important considerations to making specific recommendations about blood pressure self-management for a particular patient.

Potential for Program Effectiveness

Secondary data were used to understand the effectiveness of the MLC on cardiovascular disease related quality improvement and health outcomes. From 2011 to 2014, 10,349 hypertensive patients that were previously uncontrolled achieved blood pressure control in 44 clinics. Over time, more practices reached targets on process-related quality measures, such as blood pressure measurement [NQF 13] and tobacco use assessment [NQF 28a] (See Table). In 2011, on average, practices conducted blood pressure measurement on 95.4% of their hypertensive patients, and this indicator increased to more than 99% in 2013. For quality measures aligned with the Million Hearts® initiative (aspirin use when appropriate [NQF 67], blood pressure control [NQF 18], cholesterol management [NQF 75], smoking cessation [NQF 28b]), more practices achieved the 70% target for tobacco cessation intervention and secondary prevention using aspirin compared with blood pressure control. Provider assessment of tobacco use and recommendations of tobacco cessation interventions among those who smoked also increased by almost 40% from 2011 to 2014 ($p < .001$).

Table. Mean Percentage of Cardiovascular-related Quality Measures Across Maryland Learning Collaborative (MLC) Practices from 2011 to 2014, Adjusted for Practice Characteristics

Cardiovascular-related Quality Measure	2011 (n=52)	2012 (n=52)	2013 (n=52)	2014 (n=17)	P value ^a
NQF 13: Hypertension Blood Pressure Measurement	95.4%	98.9%	99.5%	–	<0.001^b
NQF 18: Controlling High Blood Pressure	68.6%	62.6%	64.9%	63.9%	0.25
NQF 28a: Tobacco Use Assessment	56.0%	88.6%	92.2%	93.1%	<0.001^b
NQF 28b: Tobacco Cessation Intervention	33.6%	53.4%	54.3%	71.4%	<0.001^b
NQF 67: Coronary Artery Disease (CAD): Oral Antiplatelet Therapy Prescribed for Patients with CAD	74.8%	80.8%	72.9%	88.5%	0.69
NQF 75: Ischemic Vascular Disease: Complete Lipid Panel and LDL Control	60.2%	54.1%	42.3%	–	0.70
	40.2%	39.9%	42.3%	–	0.17
NQF 81: Heart Failure: ACE Inhibitor for LVSD	67.2%	52.3%	58.5%	–	0.41

LDL: Low-density lipoprotein; ACE: Angiotensin-converting enzyme; LVSD: left ventricular systolic dysfunction.

Note: 2014 data were unavailable for a subset of MLC participating practices and quality measures.

^a p values are based on repeated measures regression model; ^b Indicates significance at the 1% level.

Conclusion

This evaluation detected a significant improvement in clinical process measures [NQF 13] (blood pressure measurement) and [NQF 28a] (tobacco use assessment). Through the rapid EEA process, CDC was able to add to the practice-based evidence related to leveraging cross-sector partnerships to improve chronic disease outcomes. This study produced findings of interest for other local and state public health departments planning to carry out quality improvement strategies for health systems. Although, this study alone does not produce enough definitive evidence to determine whether the MLC program can be considered a best practice, it identifies promising findings worth considering regarding the implications of this model in public health. With a longer study period and larger sample size during the intervention year (2014), the evaluation findings may have identified a more significant change in clinical health outcome measures.

Disclaimer: The opinions and conclusions are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

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