



## Improving North Carolina's Health: Applying Evidence for Success

September 2012

In North Carolina, the Division of Public Health (DPH) and the local health departments (LHDs) are charged with working in partnership to “promote and contribute to the highest level of health possible for the people of North Carolina.”<sup>a</sup> To fulfill this mission, DPH and LHDs are tasked with preventing health risks and disease; promoting healthy lifestyles; promoting a safe and healthful environment; promoting the availability and accessibility of quality health care services through the private sector or directly, if not otherwise available. To accomplish this with limited financial resources requires public health practitioners to find ways to optimize the impact of their work. Incorporating scientific evidence about what works into management decisions, program implementation, clinical services, and policy development, is one way to do this.<sup>1</sup>

The use of research and evidence to inform public health decision making is gaining momentum across federal, state, and local public health agencies. Evidence-based strategies (EBSs) include programs, clinical interventions, and policies that have been evaluated and shown to have positive outcomes. Researchers agree that evidenced-based strategies should produce positive outcomes when replicated with fidelity. However, wide variation exists among what researchers and practitioners actually define as “evidence-based.” The Task Force adopted a definition that recognized different levels of EBSs, but places emphasis on implementation of the best or leading practices that have the strongest evidence of effectiveness. (See Table 1.)

Using EBSs in public health yields many benefits including increasing the likelihood that programs, clinical interventions, and policies implemented at the state or local level will be successful, and increasing public resource efficiency.<sup>2</sup> Additionally, using evidence to inform practice can help practitioners avoid implementing programs and policies deemed ineffective or harmful. Investing these limited resources in programs, clinical treatments, and policies that have shown results makes sound economic sense.

Implementing EBSs in public health is an appealing concept, however, selecting, implementing, and evaluating EBSs is not a simple process.<sup>1</sup> Before an EBS can be selected, a community health assessment should be conducted to identify local health needs and priorities so that the intervention or strategy selected is well suited to the context. Once priorities are identified, public health practitioners must then look at the available research

**Table 1**  
**Evidence-Based Strategies Continuum**

**Best (B), Proven, or EBP:** These practices are supported by intervention evaluations or studies with rigorous systematic review that have evidence of effectiveness, reach, feasibility, sustainability, and transferability.

**Leading (L):** These practices are supported by intervention evaluations or studies with peer review of practice that have evidence of effectiveness, reach, feasibility, sustainability, and transferability.

**Promising (P):** These practices are supported by intervention evaluations without peer review of practice or publication that have evidence of effectiveness, reach, feasibility, sustainability, and transferability.

**Emerging (E):** These practices are supported by field-based summaries or evaluations in progress that have plausible evidence of effectiveness, reach, feasibility, sustainability, and transferability.

Source: Adopted from the Centers for Disease Control and Prevention Best Practices Workgroup

a. NCGA 130A-1.1(b), Session Law 2012-126

on strategies to address their community's needs. When selecting an EBS, public health practitioners must weigh all the information obtained—about EBSs themselves, the needs and wants of the population they are serving, and the resources available—and make a decision about what will be the best fit for their organization and community.<sup>2</sup> Although EBSs have been evaluated and shown to produce positive outcomes, those outcomes are specifically tied to the implementation of the strategy. Thus, to replicate success, the strategy must be implemented with fidelity to the original model program, clinical intervention, or policy. Implementing with a high level of fidelity requires careful planning, the alignment of organizational goals and capacity, and continuous staff support.<sup>3</sup> Assessing implementation fidelity and monitoring immediate outcomes is a critical step towards achieving the positive outcomes of an EBS. Effective implementation requires the collection of process and outcome measures to ensure that the intervention is achieving its desired purpose.<sup>3</sup> Selecting, implementing, and evaluating EBSs often requires skills, knowledge, and resources that LHDs may not currently have. Therefore there is a need for education, training, and other support to help LHDs increase the use of EBSs.

Over the past few years, the North Carolina Institute of Medicine (NCIOM), DPH, and other state partners have worked together to develop a vision and roadmap for improving public health efforts to save lives, reduce disability, improve quality of life, and, potentially, decrease costs. The *Prevention Action Plan for North Carolina* includes evidence-based strategies to improve population health.<sup>4</sup> *Healthy North Carolina 2020: A Better State of Health* includes 40 objectives to improve population health by 2020 as well as EBSs to help achieve the objectives.<sup>5</sup> Together, the *Prevention Action Plan for North Carolina* and *Healthy North Carolina 2020: A Better State of Health* provided the vision, goals, and an evidence-based roadmap for improving the health of North Carolinians. The Task Force on Implementing Evidence-Based Strategies in Public Health builds on these previous efforts by focusing on what can be done at the state and local level to improve outcomes for the HNC 2020 objectives.

*Improving North Carolina's Health: Applying Evidence for Success*, the report of the Task Force on Implementing Evidence-Based Strategies in Public Health, presents a way to improve the health of North Carolinians that can occur

if DPH and LHDs, as well as other state partners, work together collaboratively to effectively select, implement, and evaluate EBSs. This idea of collaborative leadership, built on a foundation of reciprocal accountability that recognizes and builds on the responsibilities, assets, and strengths of DPH and LHDs was at the forefront of the Task Force's deliberations and the development of the recommendations. The Task Force believes that DPH and LHDs have reciprocal obligations to one another that must be met in order to advance the widespread adoption of EBSs at the local level. Therefore, the recommendations include steps that must be taken by both DPH and LHDs and reflect the belief that, for every increment of performance demanded from local health departments, the state has an equal responsibility to provide local health departments with the capacity to meet those expectations.

The NCIOM, in collaboration with the North Carolina Center for Public Health Quality, the Center for Healthy North Carolina, and DPH, convened the Task Force in the spring of 2012. The Task Force on Implementing Evidence-Based Strategies in Public Health was charged with developing recommendations to assist public health professionals in the identification and implementation of EBSs within their communities to improve population health. Funding support for the Task Force was provided by the Centers for Disease Control and Prevention's National Public Health Improvement Initiative, which provides grant funding to state, tribal, local, and territorial health departments to enhance the nation's public health infrastructure and strengthen the public health workforce. The Task Force on Implementing Evidence-Based Strategies in Public Health included 37 Task Force and Steering Committee members including representatives of state and local agencies, key health care leaders, public health experts, foundation leaders, and other interested individuals. The Task Force met six times between March and September of 2012.

### **Recommendations for Selecting, Implementing, and Evaluating Evidence-Based Strategies in Public Health**

Education is needed to ensure key public health staff understand the importance of focusing limited public health resources on implementing strategies that have been shown to be effective in producing positive health outcomes. DPH and LHD staff need a basic understanding of what EBSs are, why it is important to implement EBSs,

and the need to implement these strategies with fidelity to their tested design. More detailed trainings and coaching are needed for people who are charged with implementing specific EBSs. *To effectuate this broader paradigm shift to support implementation of EBS, the Task Force recommends state public health staff, in partnership with other state agencies and other partners offer trainings on EBSs to state, regional, and local staff. In return, LHDs should ensure that appropriate staff receive EBS training.*

When selecting an EBS to implement, public health practitioners need information about the different EBSs including the level of evidence supporting the various EBSs, staffing needs, the costs of implementation, and whether or not the program offers technical assistance and/or coaching to implement the program with fidelity. They also need to consider whether they have, or could obtain, the appropriate staff and/or resources to be able to implement the EBS with fidelity. Local health directors identified selecting appropriate EBSs for their community as an area in which they could use help. The Task Force explored ways DPH and other partners can help support LHDs in this process. *To support selection of appropriate EBS, the Task Force recommends that DPH work with local health directors, academic institutions, and partnering organizations to identify 2 state-selected EBSs for 10 of the priority Healthy North Carolina 2020 (HNC 2020) objectives identified by LHD action plans, and at least one expert contact for each selected EBS.*

Once an EBS is selected, the LHD must ensure that the program, policy, or clinical intervention is implemented with fidelity. Evidence-based strategies have achieved positive health outcomes by following certain key programmatic, clinical, or policy guidelines. A community cannot expect to achieve the same outcomes unless it follows the core components of an evidence-based program, policy, or clinical intervention. Successful implementation requires leadership, organizational commitment, staff training and coaching, quality improvement efforts, data collection, and performance assessment as well as fidelity to the core implementation components of the selected EBS.<sup>3</sup> *To facilitate implementation of EBSs the Task Force recommends that, DPH utilize a quality improvement approach to support and encourage LHD implementation of EBSs, pursue and publicize funding opportunities, promote learning collaboratives and provide more detailed EBSs training, technical assistance, and coaching. In return,*

*LHD leadership should serve as champions to implement EBSs and ensure that appropriate staff receive necessary training.*

Evaluation is also an important component of effective implementation of EBSs in LHDs. Collection of both process and outcome measures is critical.<sup>3</sup> Without knowing if the initiative was implemented with fidelity, it is difficult to interpret the success or failure of a given EBS on changing health outcome measures. LHDs may also need data about program effectiveness to support ongoing funding. *To ensure that EBSs are being implemented appropriately and achieving desired outcomes, the Task Force recommends that DPH identify or develop evaluation and data collection tools for each state-selected EBS and provide training and coaching to local staff to enable them to collect the appropriate data. LHDs should ensure staff receive necessary training to collect requisite process and outcome data.*

### **Reciprocal Obligations**

The Task Force identified many ways in which DPH and collaborating partners could assist LHDs in implementing evidence-based programs, policies, and clinical interventions, including education, assistance identifying appropriate EBSs, technical assistance and coaching to insure EBSs are implemented with fidelity, and evaluation support. If the state provides this assistance, then LHDs have reciprocal obligations to implement evidence-based strategies. *The Task Force recommends that if DPH fulfills the obligations outlined, then DPH should revise the 2013 Consolidated Agreement to require LHDs to identify and implement two new EBSs to address HNC 2020 priority objectives from different HNC 2020 focus areas as identified through the community health assessment.*

### **Partnering Organizations**

The Task Force recognized that the Division of Public Health may not have sufficient resources or expertise to support LHDs with selection, implementation, and evaluation for all the state-selected EBSs. Nonetheless, everyone recognized the importance of moving as forcefully as possible towards implementation of EBSs to improve population health. One way to expand DPH's capacity to support LHDs is by working with state and national partners. *To support and extend the work of DPH, the Center for Training and Research Translation should convene academic and other appropriate organizations*

to assist the state, to the extent possible, in identifying appropriate EBSs to address priority HNC 2020 objectives; providing implementation support; and assisting with the collection and analysis of data.

## Conclusion

The Division of Public Health and LHDs can help improve the health and well-being of North Carolinians by increasing efforts to provide evidence-based programs, policies, and clinical interventions. The Task Force

on Implementing Evidence-Based Strategies in Public Health developed strategies that provide a roadmap for how DPH, LHDs, and other state and national partners can work together to facilitate the adoption or expansion of EBSs by LHDs, with the goal of improving HNC 2020 health outcomes in local communities. By working together to make such changes, DPH, LHDs, and other partners can help make North Carolina a healthier state.

## References

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A copy of the full report, including the complete recommendations, is available on the North Carolina Institute of Medicine website, <http://www.nciom.org>. North Carolina Institute of Medicine. In collaboration with the North Carolina Center for Public Health Quality, the Center for Healthy North Carolina, and the North Carolina Division of Public Health. Funded by the Centers for Disease Control and Prevention's National Public Health Improvement Initiative



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