

## V. Infrastructure, Administration, and Management

### Justification

A comprehensive tobacco control program requires considerable funding to implement; therefore, a fully functioning infrastructure must be in place in order to achieve the capacity to implement effective interventions.<sup>1-6</sup> Sufficient capacity is essential for program sustainability, efficacy, and efficiency, and enables programs to plan their strategic efforts, provide strong leadership, and foster collaboration among the state and local tobacco control communities. An adequate number of skilled staff is also necessary to provide or facilitate program oversight, technical assistance, and training.

Staff resources dedicated to administration and management of infrastructure development and maintenance activities include:<sup>1</sup>

- Engaging in strategic planning to guide program efforts and resources to accomplish their goals
- Recruiting and developing qualified and diverse technical, program, and administrative staff
- Awarding and monitoring program contracts and grants, coordinating implementation across program areas, and assessing grantee program performance
- Developing and maintaining a real-time fiscal management system
- Increasing capacity at the local level by providing ongoing training and technical assistance
- Coordinating across chronic disease programs and with local coalitions and partners
- Educating the public and decision makers on the health effects of tobacco and effective, evidence-based program and policy interventions

In part due to rising fiscal challenges, an increasing number of state health departments have taken steps to combine efforts and increase efficiency by realigning disease-specific programs into a coordinated chronic disease infrastructure. These steps often include developing and implementing cross-cutting policies, conducting integrated chronic disease surveillance and evaluation, targeting interventions toward areas of the state with the greatest burden, and developing coordinated messaging to reach people with comorbidities.

Addressing tobacco control strategies in the broader context of chronic diseases can be beneficial from the standpoint of enhanced coordination and efficiencies related to basic administrative functions, as well as the potential to synergistically increase the reach and efficacy of interventions.

However, the realignment of disease-specific programs may also result in the dismantling of dedicated staff and resources for state tobacco control programs. Potential strategies to reduce any adverse impact of infrastructural changes on state tobacco control programs include:

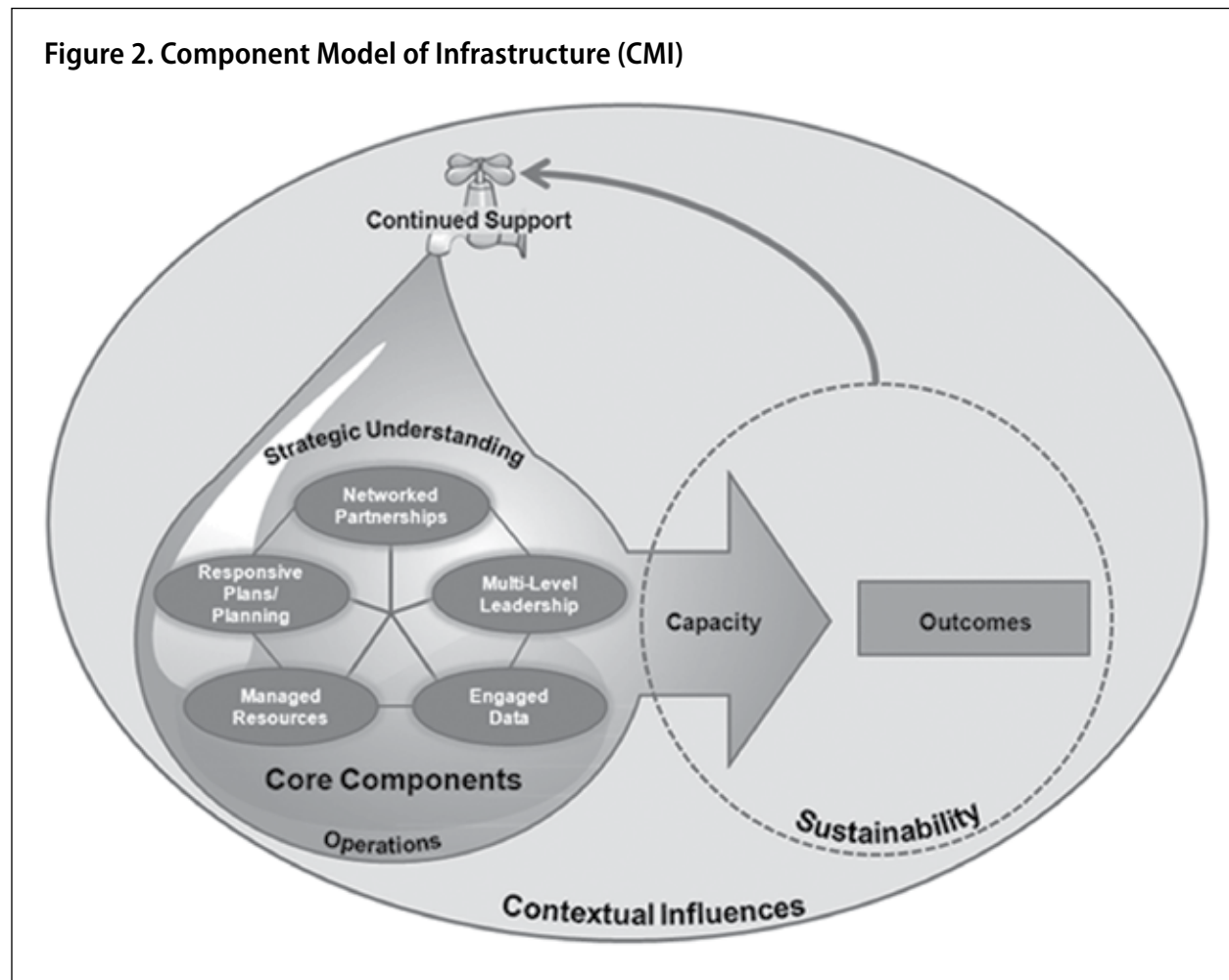
- Establishing or maintaining a full-time tobacco control program manager
- Retaining core staff positions necessary and unique to tobacco control interventions
- Developing and sustaining collaborations with external partners
- Expanding staff and partner capacity through trainings for state and community staff
- Exploring alternative funding opportunities to support staffing for a broad chronic disease infrastructure that includes a highly functioning tobacco control program

### Functioning Infrastructure

Program infrastructure is the foundation that supports program capacity, implementation, and sustainability.<sup>2-7</sup> The Component Model of Infrastructure (CMI) defines infrastructure in a practical, actionable, and evaluable manner so that grant planners, evaluators, and program implementers can link infrastructure to capacity, measure

success, and increase the likelihood for sustainable health achievements (See Figure 2). According to CMI, functioning program infrastructure includes five core components: networked partnerships, multilevel leadership, engaged data, managed resources, and responsive plans/planning.<sup>2-5</sup>

Figure 2. Component Model of Infrastructure (CMI)



**Networked Partnerships:** Strategic collaboration is crucial at the national, state, and local levels. These partnerships can be made between multiple types of organizations and content areas to promote progress toward health goals. Although many partners are working towards a common mission, they may fill different roles. In this way, networked partnerships can work to ensure the accomplishment of all activities necessary to achieve public health goals.

**Multi-level Leadership:** Leaders and champions can be identified and nurtured at all levels. This includes leadership above the tobacco control program in the health department or other organizational unit where the program is located; leadership within the program beyond the program manager; leadership among partners and other chronic disease areas; and leadership in local programs. Leadership at all levels is necessary to develop relationships and to ensure functioning program infrastructure and progress toward health goals.

**Engaged Data:** Data can be used in a manner that engages staff, partners, decision makers, and local programs to act. Data should not merely be collected and displayed but also used to promote public health goals. Therefore, training, technical assistance, and follow-through are necessary to ensure the proper utilization of data.

**Managed Resources:** A functional infrastructure requires resources beyond financing, including an adequate number of staff and partners who are qualified and have diverse technical, program, and administrative skills. Staff, partners, and local programs must also have the necessary training and skills to effectively implement the tobacco control program.

**Responsive Plans / Planning:** Responsive strategic plans are dynamic and evolve in response to contextual influences, such as changes in scientific evidence, priorities, funding levels, and external support. In addition, the planning process is collaborative and includes viewpoints from multiple stakeholders.<sup>8</sup> This process fosters shared ownership and responsibility for the goals and objectives between the state program, partners, and local programs.

Multiple states have successfully realized the core components of the CMI. For example, Oregon has three levels of *Networked Partnerships*, including local community partners, chronic disease areas, and other agencies such as substance abuse and mental health treatment facilities. In 2011, networked partnerships were instrumental in successfully producing Oregon's first-ever report on how managed care organizations serving Medicaid clients identify tobacco users and provide tobacco cessation services, and determine whether those services met evidence-based standards.

Similarly, Utah utilized *Multi-level Leadership* to address cessation via a project addressing the health burden of tobacco use among those suffering from substance abuse or mental health issues. The program developed a leadership team for the project that included leaders from the substance abuse and mental health programs, as well as local health departments, non-profits, clinical directors, and clients. They worked with every leader to ensure that each felt ownership of the project.

For *Engaged Data*, New York developed a surveillance and evaluation system using program logic models that included evaluation data from locally funded programs. Data have been used to evaluate the state's comprehensive smokefree law using multiple indicators, including hospitality venue sales, indoor air quality, biomarkers of secondhand smoke exposure in employees, and long term measures such as hospital admissions for heart attacks.

For *Managed Resources*, Massachusetts adheres to a model in which core capabilities are kept in house and the rest are outsourced. This model includes cross-training and preparing staff to move into leadership roles, as well as maintaining a robust training program that ensures staff and partners' capabilities grow and keep pace with technological advancement.

Finally, for *Responsive Plans/Planning*, Colorado created a flexible, budget- and evidence-based, strategic plan that enabled their staff to respond to changes, including funding reductions. Key components of the plan comprised evaluation as well as infrastructure development and maintenance, which included training and technical assistance.

However, CMI goes beyond the core components in its depiction of functioning program infrastructure. The five core components of the CMI model are enveloped in contextual influences as well as supporting components,

including *Strategic Understanding* and *Operations*.<sup>2-7</sup> This type of framework enables a tobacco control program to quickly align with strategic plans and partners, irrespective of what opportunities or challenges emerge.

The *Strategic Understanding* component encompasses the ideas, guidelines, and thinking that initiate, nurture, and sustain infrastructure. Core concepts include perception of the problem as a public health issue—both among the public and decision makers—as well as planning for program sustainability at the beginning rather than at the end of a funding cycle. A sustainability plan can be one of the critical plans included under the *Responsive Plans/Planning* component, along with the strategic plan.

The *Operations* component comprises the day-to-day work structures, communications, and procedures associated with implementing a comprehensive tobacco control program. Operations can include roles and responsibilities of staff, partners, and local programs, as well as a formal and effective communications system. This communication system needs to include methods for communicating data, evaluation results, program operations, funding guidelines, and goals and objectives, not only among staff, but also within the health department, across connected programs and chronic disease areas, and with partners, local programs, and decision makers.

## Capacity

Capacity is the ability to implement evidence-based interventions.<sup>2-4</sup> Once infrastructure is built and properly supported, it facilitates the capacity to take advantage of opportunities, create opportunities, and to defend against threats to the achievement of the program goals. Building and maintaining the infrastructure to support capacity to provide guidance, technical assistance, and coordination among programs and partners are critical, foundational activities for comprehensive tobacco control programs.<sup>1-4,9,10</sup>

State experience has shown the importance of having all of the program’s components coordinated and working together. Program management and coordination present a challenge in that a comprehensive program involves multiple state agencies (e.g. public health, education, and law enforcement) and levels of local government, other public health programs, and numerous health-related voluntary organizations, coalitions, and community groups.

Administration and management staff provide the stable foundation on which any program is built and maintained. Accordingly, an adequate number of skilled staff is required to fully implement and sustain a comprehensive tobacco control program. The exact percentage of full time equivalent positions required will depend on the state population, current tobacco control progress, and program needs. However, all programs should consider having staff to cover the necessary components of a comprehensive tobacco control program.

### Ideal Staffing Plan for a Comprehensive Tobacco Control Program

- Program director.
- Policy coordinator.
- Communications specialist.
- Cessation coordinator.
- Surveillance and evaluation staff.
- Fiscal management systems staff.
- Administrative staff.

## Continued Support

Once a strong, functioning program infrastructure is in place, the cumulative effect of funding on program effectiveness becomes evident. Research shows that the longer states invest in comprehensive tobacco control programs, the greater and quicker the impact.<sup>11-13</sup> Because a significant amount of time and resources may be required to establish a functional infrastructure capable of implementing effective tobacco control interventions, it is critical to maintain that infrastructure.

CMI depicts the critical nature of continued support and the cyclical nature of maintaining functioning program infrastructure and its impact on outcomes and sustainability. Sustainability has been defined as the “existence of structures and processes that allow a program to leverage resources to effectively implement and maintain evidence-based policies and activities.”<sup>10</sup> These structures and processes are embodied in the core and enveloping components of CMI.

## Achieving Equity to Reduce Tobacco-Related Disparities

In order to adequately identify and effectively eliminate tobacco-related disparities, state tobacco control programs must implement a number of tobacco prevention and control strategies, including establishing infrastructure and building capacity.<sup>14</sup> These strategies help guide the development of policies and practices that reflect the principles of inclusion, cultural competency, and equity.

To support achieving equity and reaching the goal of identifying and eliminating tobacco-related disparities, it is crucial that state tobacco control programs work to achieve the infrastructure and capacity necessary to: conduct surveillance to identify populations disproportionately affected by tobacco use and disseminate the data; partner with population groups disproportionately affected by tobacco and the community organizations that serve them; ensure that disparity issues are an integral part of state and community tobacco control strategic plans, fund organizations that can effectively reach, involve, and mobilize these populations; and provide culturally competent technical assistance and training to grantees and partners.

This guidance highlights the minimum infrastructure and capacity needed by state tobacco control programs to pursue a strategic plan with initiatives that will most effectively achieve equity in tobacco prevention and control through the identification and elimination of tobacco-related disparities.

## Budget

Best practices dictate that 5% of total annual tobacco control program funds be allocated for administration and management of infrastructure development and maintenance activities. This budget is for the administration and management of infrastructure, not for all infrastructure activities. This might include costs pertaining to office expenses, postage and shipping, printing and duplication, occupancy expenses, equipment and maintenance, training and travel, planning, coordination activities, as well as staff time directly related to core planning and program oversight functions.

Because of the importance of maintaining functioning infrastructure and the capacity to provide guidance, technical assistance, and coordination among programs and other key partners, the suggested target for administration and management of infrastructure activities should generally be 5% of a state's total CDC-recommended program budget, even if actual program funding is below the CDC-recommended level.

## References

1. Centers for Disease Control and Prevention. *Best Practices for Comprehensive Tobacco Control Programs — October 2007*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2007.
2. Lavinghouze SR, Snyder K, Rieker P, Ottoson J. Consideration of an applied model of public health program infrastructure. *Journal of Public Health Management and Practice* 2013;19(6):E28–E37. DOI: 10.1097/PHH.0b013e31828554c8.
3. Lavinghouze SR. The difficulties and complexities of evaluating “inputs”: the forgotten box of the logic model. Panel presentation #406 at the Twenty-Fifth Annual American Evaluation Association Conference; November 2011; Anaheim, CA.
4. Lavinghouze SR. The components of infrastructure: A model in progress. Panel presentation #576 at the Twenty-Fifth Annual American Evaluation Association Conference; November 2011; Anaheim, CA.
5. Lavinghouze, SR, Rieker P, Snyder K. The Component Model of Infrastructure (CMI): an infrastructure model for evaluating tobacco control programs. Evaluation ancillary meeting at the National Conference on Tobacco or Health; August 2012; Kansas City, MO.
6. Lavinghouze SR, Snyder K. Developing your evaluation plans: a critical component of public health program infrastructure. *American Journal of Health Education* 2013;44(4):237–43.
7. Centers for Disease Control and Prevention. *Developing an Effective Evaluation Report*. Atlanta: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Division of Nutrition, Physical Activity and Obesity, 2013.
8. Institute of Medicine. *Living Well with Chronic Illness: A Call for Public Health Action*. Washington: The National Academies Press, 2012.
9. Chapman R. Organization development in public health: A foundation for growth. 2010.
10. Schell SF, Luke DA, Schooley MW, Elliott MB, Herbers SH, Mueller NB, Bunger AC. Public health program capacity for sustainability: A new framework. *Implementation Science* 2013;8(15). DOI: 10.1186/1748-5908-8-15.
11. Farrelly MC, Pechacek TF, Chaloupka FJ. The impact of tobacco control program expenditures on aggregate cigarette sales: 1981–2000. *Journal of Health Economics* 2003;22(5):843–59.
12. Farrelly MC, Pechacek TF, Thomas KY, Nelson D. The impact of tobacco control programs on adult smoking. *American Journal of Public Health* 2008;98(2):304–9.
13. Farrelly MC, Loomis BR, Han B, Gfroerer J, Kuiper N, Couzens GL, Dube SR, Caraballo RS. A comprehensive examination of the influence of state tobacco control programs and policies on youth smoking. *American Journal of Public Health* 2013;103(3):549–55.
14. Fagan P, King G, Lawrence D, Petrucci SA, Robinson RG, Banks D, et al. Eliminating tobacco-related health disparities: directions for future research. *American Journal of Public Health* 2004;94(2):211–7.