Analysis of State Obesity Legislation From 2001 to 2010

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Objective: The prevalence of obesity has increased significantly since the 1950s. Currently, more than one-third of adults are obese. This study includes the review of 611 bills that were introduced over the past 10 years for the purpose of reducing obesity. **Design:** Bills were obtained from state legislature Web sites and Centers for Disease Control and Prevention's (CDC's) Division of Nutrition, Physical Activity, and Obesity legislative database. Full text of bills was read and summed by year and the following categories: (*a*) Taskforce, (*b*) School, (*c*) Community, and (*d*) Health care. Bills were then coded according to strategies outlined in the Institute of Medicine publication, *Accelerating Progress in Obesity Prevention*. **Results:** Of the 611 obesity-specific bills proposed over the last decade, 93 (15.2%) passed and represented 30 states. The largest number of bills ("n") introduced was in the School category (n = 276), followed by Community (n = 126), Health care (n = 117), and Taskforce (n = 92). Percentages of bills passed were as follows: Taskforce (28%), Health care (16%), Schools (14%), and Community (7%). Institute of Medicine strategies were identified in most state legislations. **Conclusion:** Overall, 15% of obesity bills passed from 2001 to 2010. Legislation can be an important first step to change society and institutional norms to encourage and support people to develop healthier behaviors. Public health practitioners may find the Institute of Medicine guidance and the legislative database useful resources to further efforts in obesity prevention.

KEY WORDS: legislation, obesity, policy, public health

The prevalence of obesity has increased significantly since the late 1970s[1,2]. Currently, more than one-third of adults are obese.[2] The Surgeon General's call to action in 2001 documented concerns for this significant public health challenge.[3] This document recognized that the obesity epidemic must be addressed across all levels of the socioecological model and recommended that state governments create policies and environments where healthy dietary and physical activity opportunities are readily available. More recently, the Institute of Medicine (IOM) released "Accelerating Progress in Obesity Prevention" which also recognized that broad, sectorwide changes are necessary to address the obesity epidemic in a meaningful way.[4] The report includes a "systems map" that connects scientific recommendations with applied strategies and their appropriate sector of action. Examples of such sectors include schools, worksites, health care, and citizens and community organizations. State practitioners may be called upon by decision makers to identify examples of obesity-preventive policies within these sectors. State legislators, other policy makers, academics, and practitioners are all interested in understanding the effects of such polices as well as which policies will be acceptable to legistatures.[5] The Centers for Disease Control and Prevention maintains a database that allows for the public to search by strategy or state for legislation.[6] The purpose of this article was to illustrate the national trend of obesity legislation enacted over the last decade and to

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identify among existing enacted bills, the strategies that are in agreement with the most recent IOM recommendations based on evidence and practice-based strategies to prevent obesity. The IOM strategies were published after the enactment of the legislation. As such, our analysis does not assess whether states were guided by the IOM strategies but whether legislation already enacted was consistent with the strategies.

Methods

State obesity legislation was collected from 2 sources: the Division of Nutrition, Physical Activity, and Obesity database* and each state legislature's Web site. Both sources were searched with the key word "obesity" for the years 2001-2010. The 714 bills that were identified were then grouped according to the bill's action or setting (eg, school physical education, setting up a taskforce). For bills that overlapped categories (eg, school taskforce), the bills were placed in the setting where the bill would be actionable (eg, schools) A total of 103 bills were excluded because they were not focused on preventing obesity. Of these, 90 focused on protecting the food industry from liable suits and 13 did not feature obesity as a central focus. Bills that were resolutions and not requiring action were also excluded.

Data synthesis

The remaining 611 bills were sorted according to their intent or focus of action into the following categories: (*a*) Taskforce, (*b*) School, (*c*) Community, and (*d*) Health care. Bills supporting the creation of commissions (or councils or committees) for the purpose of conducting a study were labeled as "Taskforce"; bills relating to strategies in the school setting were labeled "School"; bills that addressed or would benefit the community "at large" and did not apply to a specific setting were labeled as "Community"; and finally, bills relating to the provision of insurance, medical care, or provider-based programs were labeled "Health care." The enacted bills were separated and full text was read and coded by a single reviewer, for consistency, toward the presence of bill actions according to strategies listed in Appendix. Bills were then summed according to category and year. The bills were then coded by the same reviewer using the strategy number in accordance with the IOM report, *Accelerating Progress in Obesity Prevention*, Appendix. The assigned strategy number from IOM indicates that the strategy is represented in purpose or actions within the bill language.

*Search conducted under previous system, database has been renamed, restructured, and rereleased as the "Chronic Disease State Policy Tracking System."

Results

The total number of obesity bills introduced was 36 in 2001-2002, 147 in 2003-2004, 188 in 2005-2006, 89 in 2007-2008, and 151 in 2009-2010 sessions (data not shown). Of the 611 obesity-specific bills proposed over the last decade, 93 (15.2%) were enacted. Figure 1 represents the total bill accumulation in addition to the cumulative number of each category. The number of bills enacted specifically for the "school" and "taskforce" categories is the largest representation of all bills. All bill categories have continued to increase over time. Thirty states enacted obesity bills as referenced in Table 1, which provides the number of enacted bills by state, category, and the corresponding IOM strategy. From 2001 to 2010, the largest number ("n") of bills enacted were in the School category (n = 39), followed by Taskforce (n = 26), Health care (n = 19), and Community (n = 9). The percentages of bills enacted were as follows: Taskforce (28%), Health care (16%), Schools (14%), and Community (7%).

Discussion

States that enacted bills identified approaches that were consistent with recommended strategies outlined in the IOM, with the majority presenting those in the school environment. A few states also identified strategies within a broader community context, especially in more recent years, such as (9) "food and beverage retailing and distribution policies; (13) "nutrition labeling system," and (16) "health care and advocacy." Preventive counseling as part of treatment of obesity was included in several health care bills with reference to National Institute of Health guidelines.[7] As noted by other reviews, evidence-informed policy making is an incremental progression with public policies evolving over decades.[5] As part of this review process, the author noted bill language to support that conclusion. As indicated from 2001 to 2004, the majority of bills enacted were related to establishing a taskforce, addressing school physical activity and nutrition, and coverage of surgical treatment of obesity. In 2005-2006, "bill language" evolved and became more focused, for example, by outlining specific standards for vending and model physical activity programs. Obesity prevention bills directed at the broader public (or community) began to enact in 2006. Although "Taskforce" bills were not evaluated

FIGURE 1 ● Cumulative Number of State-Level Enacted Obesity Laws by Legislative Session and Type, 2001-2010

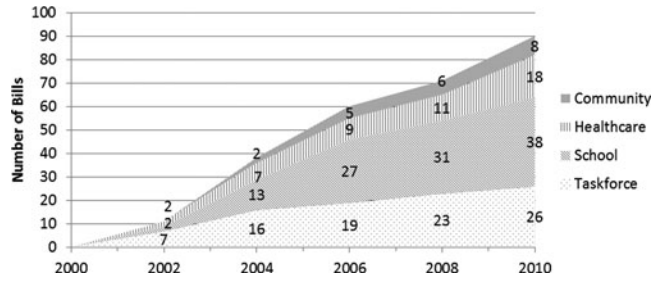

TABLE 1 ● State List of Enacted Obesity Legislation by Category and IOM Strategy, 2001-2010

State	Taskforce[a]	School[b]	Community[c]	Health care[d]	Total	IOM[e]
Arkansas	0	1	0	0	1	3, 6, 20
California	0	4	2	1	7	3, 6, 19, 20
Colorado	0	3	0	1	4	3, 6, 20
Delaware	1	0	0	0	1	3
Florida	0	1	2	0	3	9, 16, 18
Iowa	0	0	2	0	2	2
Idaho	0	0	0	1	1	NA
Illinois	2	1	0	0	3	11
Indiana	0	0	0	1	1	17
Kansas	0	1	0	1	2	6, 20
Kentucky	1	0	0	0	1	NA
Louisiana	1	2	0	0	3	3, 20
Massachusetts	0	1	1	0	2	9, 20
Maryland	2	3	0	7	12	3, 17, 20
Maine	1	1	0	0	2	3
Mississippi	3	3	0	1	7	3, 15, 20
North Carolina	3	4	1	1	9	1, 2, 3, 4, 14, 16, 20
New Hampshire	1	1	0	1	3	3, 17
New Jersey	1	0	0	0	1	NA
Nevada	1	0	0	0	1	NA
New York	2	1	0	0	3	NA
Oklahoma	2	1	0	0	3	3, 20
Rhode Island	1	2	1	0	4	2, 3, 20
South Carolina	0	0	0	1	1	17
Tennessee	2	2	0	0	4	20
Texas	2	2	0	0	4	3, 18, 20
Virginia	0	2	0	1	3	17
Vermont	0	0	0	2	2	16, 17
Washington	0	1	0	0	1	6, 20
West Virginia	0	2	0	0	2	3, 20
Total	26	39	9	19	93	

Abbreviations: IOM, Institute of Medicine; NA, not applicable.
[a]Taskforce—bills supporting the creation of councils or committees for the purpose of conducting a study.
[b]School—bills relating to strategies in the school setting.
[c]Community—bills that addressed or would benefit the community "at large" and did not apply to a specific setting.
[d]Health care—bills relating to the provision of insurance, medical care, or provider-based programs.
[e]IOM—number corresponds to abbreviated strategy list number in IOM Accelerating Progress in Obesity Prevention Appendix . Strategies defined in Appendix C of report.[4]

toward specific IOM strategies (since their purpose is to set forth broad study of all strategies), legislation that establishes taskforces, coalitions, and councils can be an important first step for government to set objectives and prioritize strategies and standards that support systems and societal change for obesity prevention. While other publications provide analysis of state-level obesity legislation, this article's methodology reviews with "obesity"-specific enacted legislation defined as a purpose within bill language as a criteria (rather than "obesity-related) and outlines the successful bills (enacted) as they relate to the most recent IOM report.[4]

Limitations

This analysis is subject to at least two limitations. First, this is not an exhaustive review of all obesity-related legislations introduced in state legislatures. Although not part of this review, many states have introduced and successfully enacted bills whose intent does not specifically address obesity but that seek to improve healthy food choices and environments that support active living and other IOM-recommended strategies. This review intended to capture the broader state effort toward obesity specifically. It is possible that obesity bills could have been missed in our search process, as the capacities of state databases to how states set the parameters for text searches of legislation vary.[8]

Conclusion

Over the past decade, state-enacted obesity legislation has evolved from taskforce and school bills predominantly to an increasing number of bills within the other sectors such as health care and the broader community. Also, bill language has become more explicit in describing the action needed to address obesity. in all categories of bills. The success of 30 states to enact legislation that includes elements of the IOM guidance for obesity prevention may provide guidance for other states that seek similar strategies. Moving forward, the IOM report can serve as a useful resource for states and localities as they devise strategies to prevent obesity.

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Appendix: Institute of Medicine–Abbreviated Strategies (Strategies as outlined in IOM, Appendix B)

(1) Physical and built environment
(2) Physical activity-related community programs
(3) Physical education and physical activity in schools
(4) Physical activity in child care centers
(5) Science and practice of physical activity
(6) Sugar-sweetened beverages
(7) Food and beverage options for children in restaurants
(8) Nutritional standards for all food and beverages
(9) Food and beverage retailing and distribution policies
(10) US agriculture policy and research
(11) Social marketing program
(12) Food and beverage marketing standards for children
(13) Nutrition labeling system
(14) Nutrition education policies
(15) Food literacy in schools
(16) Health care and advocacy
(17) Coverage of and access to and incentives for obesity prevention, screening, diagnosis, and treatment
(18) Healthy eating and active living at work
(19) Weight gain and breast feeding
(20) School food and beverage standards