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Minnesota MPROVE Study:
Overall Findings and State Specific Analysis

October 2013

This brief highlights Minnesota-specific findings for the Multi-network Practice and Outcome Variation Examination (MPROVE) Study, a multi-state study led by the National PBRN Coordinating Center and engaging public health practice-based research networks (PBRNs) in Colorado, Florida, Minnesota, New Jersey, North Carolina, Tennessee, and Washington.

Methods

PBRNs in participating states collaboratively developed a package of public health activities measures for environmental health, communicable disease and chronic disease. Partners used a Delphi process to rank more than 300 potential measures against eight criteria and then applied guiding principles to arrive at 30 measures.

The National PBRN Coordinating Center will combine the standardized data across states to examine levels of variation in public health services, and explore the relationship between public health services and population health. Minnesota contributed to measure development and selection through the Research to Action Network steering committee and the Performance Improvement Steering Committee.

To collect public health service delivery data for communicable disease control and environmental health protection, we consulted with managers, epidemiologists and other staff within the Minnesota Department of Health (MDH) who maintain local public health data in these two domains. We also coordinated with the MDH Environmental Health division to collect new data for the food protection measures.

Consultations with state and local public health officials suggested that local data for MPROVE measures in the chronic disease domain were not currently available in Minnesota, so we capitalized on an existing web-based reporting system operated by MDH to collect measures of public

Overview

The Multi-network Practice and Outcome Variation Examination (MPROVE), is a multi-state study aimed at studying the variation in public health services among local jurisdictions. Minnesota provided guidance to measure selection and the relevant data for 30 measures that cover chronic disease, communicable disease and environmental health. A snapshot of Minnesota data is provided here.

Overall, the MPROVE package of measures highlight the complexity of how Minnesota delivers public health services at the local level. Relatively little variation was detected on most measures. Statewide funding for policy, systems and environmental (PSE) change strategies has likely contributed to fairly widespread, population-based approaches to tobacco and obesity prevention. In addition, the state-local partnership to address communicable disease and environmental health may have resulted in more standard service levels across the state.

This study also examined variation in MPROVE chronic disease services by level of QI maturity and capacity. Preliminary analysis suggests some variation among Minnesota CHBs in the provision of several specific services by levels of organizational QI maturity and capacity, however variation was not seen for all of the measures within the chronic disease domain.

health service delivery in that domain. Multiple existing data collection systems were used to compile the data. As a result, the unit of analysis varies by measure (e.g., community health board (CHB), local health department (LHD), county or city). Response for all measures is 100%, with the exception of the food protection measures, where data are missing for one city/county health department.

Chronic Disease Prevention Domain

Tobacco Measures

CHBs reported an array of activities related to tobacco prevention, control and cessation in their jurisdictions. As shown in Table 1, the most frequently cited activities were (1) developing and disseminating educational materials, (2) providing or referring to tobacco cessation programs; and (3) reviewing surveillance data related to youth and adult tobacco. More than half of community health boards also reported working on policy development and 48% reported that they provide education/training programs and community development.

Table 1. Local Public Health Activities related to Tobacco Prevention, Control and Cessation, Minnesota, 2012 (n=52 CHBs)	% CHBs Yes
Educational materials (i.e., develop, disseminate written materials)	73%
Educational media (i.e., television, radio, YouTube, periodicals)	40%
Cultural/linguistic-specific materials	25%
Cultural/linguistic-specific programs	8%
Provide education/training programs	48%
Community Development (i.e., organize or participate in coalitions)	48%
Policy development	56%
Provide or refer to tobacco cessation programs	79%
Review adult tobacco use surveillance data	60%
Review youth tobacco use surveillance data	73%

Tobacco Data Notes:

Minnesota has a statewide smoking ban, therefore 100% of the population resides in areas that are covered by policies that prohibit smoking in workplaces and other public areas during the past 12 months. MN's ban also covers bars and restaurants. For that reason, local data does not vary across the state for the first indicator.

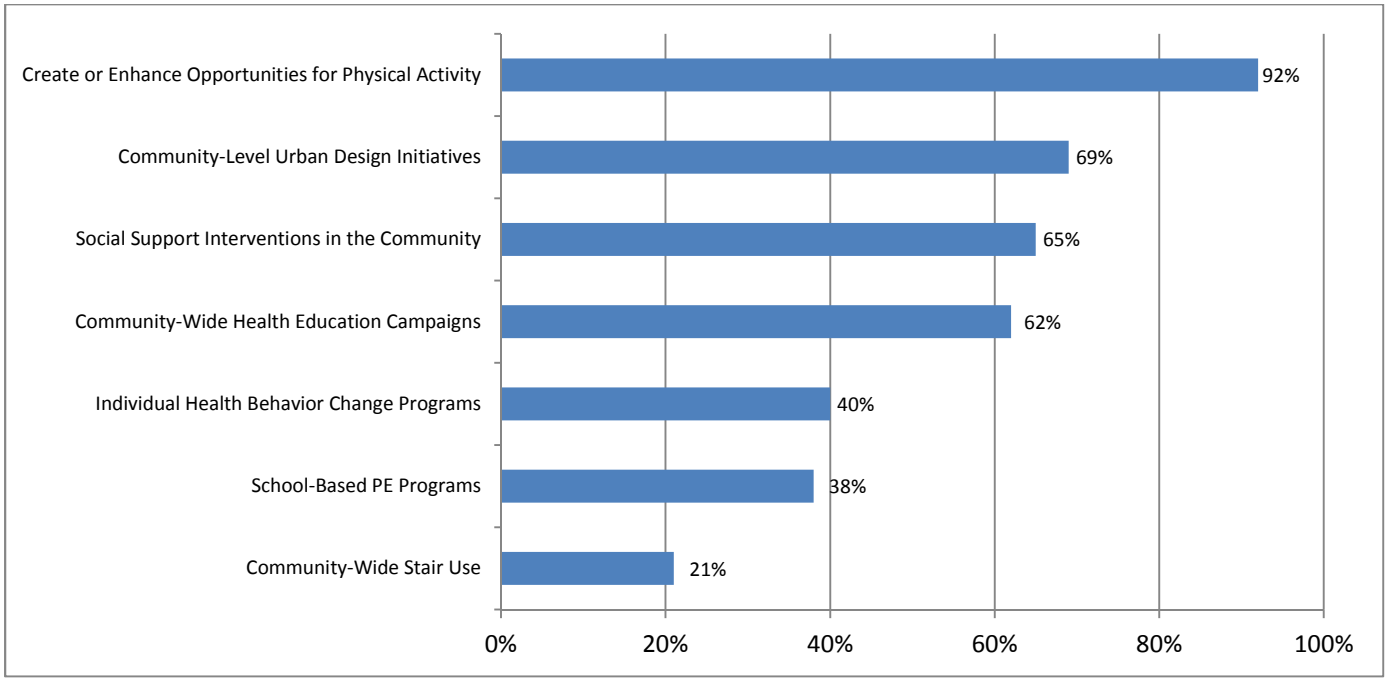
Obesity Prevention Data Notes:

In 2009 Minnesota passed sweeping health reform legislation, which included funding for the governmental public health system to support policy, system and environmental (PSE) change strategies across the state. All grantees, serving all CHBs in the state, implemented PSE strategies taken from a menu of evidence-based PSE strategies that have demonstrated success in promoting healthy nutrition, improving opportunities for physical activity and reducing tobacco use in the four settings of school, community, workplace and healthcare. For this reason, MN CHBs may be more likely to report population-based services related to obesity prevention, as compared to local public health jurisdictions other states.

Obesity Prevention Measures

Most CHBs reported that some community-wide physical activity initiatives were underway within the CHB during the reporting year (Figure 1). Note that the CHB did not necessarily fund or lead these initiatives, but they were underway within the jurisdiction(s) served by the CHB.

Figure 1: Community-Wide Physical Activity Initiatives Underway within the CHB, 2012 (n=52 CHBs)



More than half of CHBs (54%) reported involvement in an initiative to increase access to free or low cost recreational opportunities for physical activity. A similar percentage (52%) reported that the CHB allocated funding to promote physical activity. Of those that reported physical activity funding, the range in per capita funding varied dramatically, from less than $0.01 to $18.70.

Most CHBs (81%) reported being involved in an initiative to increase access to healthy foods in the community. Twenty percent of CHBs reported that they did not dedicate any staff full-time equivalent (FTE) hours to increasing healthy foods during 2012, though eight CHBs (15%) reported two or more FTE. The median FTE dedicated to increasing healthy foods was 0.50. Findings suggest that many CHBs conduct activities related to nutrition, despite limited FTE dedicated toward these activities.

Oral Health Measures

Seventy-five percent of CHBs reported that they provided oral health prevention and promotion services. Of those who did not provide those services, 85% identified oral health services as a need in their community. The range of clients screened in a given reporting year varied across CHBs, but many reported screening hundreds of clients and a few provided screening services to over 1,000 clients. Not surprisingly, CHBs identified lack of

funding as a key factor in whether they were able to provide dental screening and promotion activities. Some mentioned they have been able to effectively partner with non-profits and the private health sector to provide dental services to those who are unable to access them otherwise.

Communicable Disease Domain

In general, much of the communicable disease activity in Minnesota is performed by the Minnesota Department of Health (MDH), in coordination with local staff. Regional epidemiologists, employed by MDH, are located throughout the state in eight regional district offices. The regional epidemiologists are further supported by MDH program staff in St. Paul. These MDH personnel are often internationally-recognized experts in specific diseases or communicable disease activities and prevention. Thus, even though data can be presented by county or CHB, it may not reflect true local variation in service provision.

Immunization Measures

Overall, Minnesota has very low rates of reportable, vaccine-preventable disease. In 2012, there were seven cases of mumps (the case definition for which now includes both probable and confirmed cases) and two cases of tetanus. There were no reported cases of rubella, congenital rubella or measles. In 2011 there was an outbreak of measles in Minnesota, largely confined to Hennepin County, which was linked to a single source and was travel-related.

The Minnesota Immunization Information Connection (MIIC) is the statewide immunization registry. Childhood immunization data is maintained by county of residence on five vaccines required for kindergarten admittance in Minnesota. The percent of children protected for these diseases ranges from 93.4% to 100%, varying by vaccine type and county.

Enteric Disease Measures

Minnesota has a lab-based surveillance system, thus almost all cases reported to MDH have already received laboratory confirmation. With rare execptions, the number of reported cases equals the number of confirmed cases. All confirmed cases receive follow-up, although the degree of follow-up varies based on the severity of the case and whether it is an isolated event or linked to other cases. An attempt is made to interview all confirmed cases. Follow-up may be quite fast where the interview suggests an isolated occurrence. Cases are kept open in the system (thus longer follow-up time) if more in-depth investigation is required.

Immunizations Data Notes:

Data for this section was obtained from Minnesota's immunization registry (MIIC), which is maintained by MDH. Healthcare provider participation in MIIC is voluntary, although 85-90% of Minnesota health care providers routinely submit immunization data to MIIC. Yet even those providers that submit data to MDH may not report on every dose. If a child moves out of state, his or her MIIC record may not be updated, thus that person would still be included in the denominator used to calculate the proportion of children receiving up-to-date immunizations. Currently, Minnesota exchanges state immunization data with Wisconsin; there are not agreements with other border states. Annual required immunizations for kindergarten vary by state, as do exemption requirements. This can make national comparisons difficult. Finally, children not captured in the registry are frequently those who are home-schooled, but that is not always the case.

In 2012, the median time from receipt of a confirmed specimen to completion of the interview process varied based on reportable disease and county (Table 2). This likely reflects both differences in ability to contact and interview cases, as well as the severity of the case.

Table 2. Range in Median Time from Specimen Receipt to Completion of Interview for MN Counties, 2012

Disease	# Days
Campylobacter	0-19 days
Salmonella	0-15 days
Shiga-Toxin Producing *E. coli*	0-9 days
Shigella	0-7 days

Sexually-Transmitted Infections (STI) Control Measures

In 2012, the rate of chlamydia ranged by county from 58 per 100,000 population to 530 per 100,000. Gonorrhea rates ranged from 9 per 100,000 to 134 per 100,000 population (denominators provided by 2010 census data). For both diseases, rates were markedly higher in urban counties compared to outstate areas. There were a total of 7.0 FTE equivalents working on sexually-transmitted infectious investigations in Minnesota, with Hennepin County employing 1.0 FTE. The remaining 6.0 FTE worked across the rest of the state to support contact follow-up and other prevention activities.

STI Data Notes:

Minnesota has a passive contact identification process, so cases provide name and contact information on a voluntary basis. In addition, much of the contact follow-up occurs through the private health care system. That data isn't necessarily provided to MDH. In addition, Hennepin County is the only county in Minnesota that does its own contact follow-up. All other contact follow-up is coordinated by MDH employees, located in the metro and greater Minnesota regions. Because contact follow-up for most of the state is coordinated centrally, county of residence information is often missing from the case reports. Data excludes all cases diagnosed in federal or private correctional facilities.

Tuberculosis (TB) Control Measures

Table 3. Tuberculosis Case Rates for Selected Counties (rate per 100,000), Minnesota, 2011-2012

	2011	2012
Hennepin County	5.1	6.1
Ramsey County	6.1	7.6
Olmsted County	6.2	2.1
Minnesota	2.6	3.0
National	3.4	3.2

In Minnesota, tuberculosis (TB) is largely localized within three counties: Hennepin, Ramsey and Olmsted. This reflects immigration patterns within the state, as well as larger population centers. Rates of TB appear to be increasing slightly in Hennepin and Ramsey counties from 2011-2012, but decreasing in Olmsted County (Table 3).

Minnesota TB contact follow-up is largely focused on the three counties with the highest rates of TB, but MDH also provides contact follow-up statewide, often in partnership with local public health. A high percentage of contacts with newly-diagnosed latent TB infection (LTBI) start treatment, but there is more variation in treatment completion (Table 4).

Table 4. MN TB Contact Follow-up and Treatment Status (Indexed to 2010 TB Cases)

	Hennepin	Ramsey	Olmsted	MN Overall
# Contacts Identified	509	132	56	920
Of Identified Contacts, # Evaluated	418	109	56	780
Of those Screened, # with newly-diagnosed LTBI	65	21	5	139
% of new LTBI who started treatment	89%	90%	80%	90%
% of new LTBI who completed treatment	79%	58%	50%	77%

TB Data Notes:

All data is provided from 2010 TB index cases. By nature, the time lag on this data is lengthy. Contact investigations can take several months to over a year because medical evaluation can take over 3 months and treatment time is a minimum of 9 months. So for a TB case counted in December 2012, public health workers may not have all contacts identified and evaluated until summer 2013. That means some contacts would not have completed treatment until spring 2014. Counties have until July 2014 to report treatment completion data for contacts of 2012 index cases.

Minnesota data systems capture everything based on the county of residence for the index case, yet not all contacts may live in the county of residence of the index case. The index case's county may do some of the follow-up (for those that reside in the county), but follow-up for contacts that reside outside of the index case's county is done by other jurisdictions. In addition, if a case occurs at a school or worksite, mass screening may occur on-site (regardless of index case's county of residence). Also, in such situations, in which screening is performed by another jurisdiction or by staff of the exposure setting (e.g. school nurse, occupational health), a contact's county of residence may not be documented.

Some contact screening occurs by private providers and that data may or may not be entered into the electronic tracking system. Finding the contacts can prove difficult, particularly if they have moved out of state. Minnesota does not have data sharing reciprocity with other states for the purposes of contact follow-up.

Environmental Health Protection Domain

Environmental health protection activities in Minnesota are performed by the Minnesota Department of Health (MDH), and some local jurisdictions (those that have delegation agreements with MDH). In addition, with regard to blood lead testing and follow-up, there is a private provider role. Thus, even though data can be presented by county or CHB, it may not reflect true local variation in service provision, since much of the work is coordinated by MDH.

Blood Lead Data Notes:

Lead testing is not universal or randomly sampled in Minnesota. Thus the data are not representative of all children in Minnesota. Data include one result per year for each child tested. If a child was tested more than once in a year, the highest venous result was used. If no venous tests were performed, the highest capillary result was used. Positive test results should not be used to calculate incidence rates. This data includes some children who were identified as having elevated blood lead levels in previous years and are now being monitored.

Blood Lead Protection Measures

Not surprisingly, the highest number of positive blood lead tests are noted in the metro counties, in particular Hennepin and Ramsey. These counties have older housing stock and providers who routinely test for elevated blood lead levels among their patients. Minnesota has varying levels of follow-up, depending on the degree of elevation. Levels over 5.0 mcg/dL require some level of follow-up by a case manager, such as providing educational materials and possibly confirming the result with a venous test. Levels over 15.0 mcg/dL are venous tests only, which are considered confirmed cases. Environmental assessments are performed for all confirmed cases with a blood lead level over 15.0 mcg/dL. In many cases, this assessment involves local public health.

In 2011, 433 cases were opened on 421 unique cases of elevated blood lead and 69 of those required an environmental investigation. Of the full 421 cases, 355 (77%) were closed within 12 months. Close to 60% were closed because blood lead levels returned to normal. The rest were closed for the following reasons: administrative (e.g., child aged beyond six years), 8%; child moved or was lost to follow-up, 5%; and 1% due to refusal of services. For 90 case investigations (27%), there was no stated reason for the closure.

Food Protection Measures

In Minnesota, authority for inspecting food, beverage and lodging establishments resides with the Minnesota Department of Health (MDH). In some instances, the Commissioner of Health delegates those responsibilities to local jurisdictions through formal delegation agreements. The Delegation Agreement requires MDH to perform program evaluations of all delegated programs to ensure minimum program standards put forth in Minnesota statute and rules are in place and maintained. Program evaluations are completed a minimum of once every five years. Currently, 31 counties have full delegation agreements and 5 counties have partial delegation agreements. Some selected cities also perform inspections. MDH has jurisdiction for 51 counties.

The number of inspections performed in a calendar year is dependent on many factors (please see data notes). Smaller jurisdictions may perform less than fifty inspections per year, while a large jurisdiction such as Hennepin County, performs well over 1,000 inspections per year. A staffing ratio of 0.43 FTE per 100 establishments was consistently observed across Minnesota jurisdictions without delegation agreements (staffing ratio maintained for inspections performed by MDH staff). For jurisdictions with delegated agreements, that staffing ratio ranged from 0.2 to 3.35 FTE per 100 establishments.

Food, Beverage and Lodging Data Notes:

MDH maintains annual inspection data for the jurisdictions it inspects. Local health departments with delegation agreements were asked to submit their inspection data to MDH for the MPROVE measures. Because they are only required to submit this data every five years as part of their Delegation Agreement evaluation, this was an additional data request. Three of the delegated entities did not submit their data. Some of the other delegated entities were unable to submit all of the data elements requested.

Minnesota food code outlines a required inspection schedule, based on the risk level of the establishment (high, medium, low). Food code requires that high risk establishments be inspected every 12 months, medium risk every 18 months and low risk every 24 months. In addition, some establishments may receive repeat inspections in the same reporting year if issues had been identified and items flagged for mitigation. For that reason, it is not possible in a given reporting year to identify the percent of food establishments inspected (as a percent required under law), because the time frame for inspections varies beyond a one year time period based on risk status. Minnesota does not collect or maintain food inspection data in that way.

Additional Minnesota-Specific Analysis

Minnesota focused on the chronic disease domain for its state-specific analyses. In addition to the MPROVE chronic disease measures, variables of interest included local public health capacity to meet thirty-five of the 97 national measures for local public health departments developed by the Public Health Accreditation Board (PHAB) ("Capacity"), and ten measures of organizational QI maturity ("QI maturity"). All of these measures were integrated into Minnesota's electronic Planning and Performance Measurement Reporting System, which was open for reporting between February 15, 2013-March 31, 2013.

Methods

Capacity. This subset of 35 measures was selected by the Performance Improvement Steering Committee of Minnesota's State Community Health Services Advisory Committee. The 35 measures span all 12 national domains, and represent aspects of local public health capacity deemed particularly important in Minnesota (For more information refer to: http://www.health.state.mn.us/divs/opi/pm/schsac/wkgp/2011/pisc/docs/2012-09_newperfmeasures.pdf). In March, 2013, all 52 CHBs reported on their capacity to fully, partially, or not meet each of these 35 measures. Operational definitions were based on the PHAB's documentation guidance for LHDs pursuing national accreditation. Numerical values associated with each response were summed and then

averaged to create a capacity score for each CHB. CHBs were ranked and categorized into levels of low, medium and high capacity.

QI maturity. In March, 2013, all CHBs reported on ten measures previously developed and tested by Minnesota's public health PBRN. CHBs used a 5-point Likert scale to report on their level of agreement with each of 10 statements. Numerical values associated with each response were summed and then averaged to create an organizational QI maturity score for each CHB. (For more information refer to: http://uknowledge.uky.edu/frontiersinphssr/vol2/iss3/3/)

Results

There was considerable variation in organizational QI maturity and capacity across the 52 CHBs. There was also some variation in QI maturity and capacity level in the percentage of CHBs that reported services related to tobacco, physical activity and nutrition.

Table 5. Distribution of QI Maturity and Capacity Level among Minnesota Community Health Boards, 2012 (n=52 CHBs)

	Number and percentage of CHBs
QI Maturity	
Low	9 (17%)
Medium	33 (64%)
High	10 (19%)
Capacity	
Low	15 (29%)
Medium	26 (50%)
High	11 (21%)

Tobacco Prevention

CHBs were asked to review a list of 7 activities and identify those that the CHB helped to perform related to tobacco prevention, control and cessation during the reporting year.

QI maturity. There was little variation observed between CHB QI maturity level and provision of 10 tobacco-related services, with the exception of providing education/training programs (22% of low, over 50% of medium and high QI organizations), providing or referring to tobacco cessation programs (67% of low, 79% of medium and 90% of high QI organizations), and providing educational materials. Low QI maturity CHBs were more likely to report providing educational materials (88% of low QI vs. 70% of medium/high), medium and high maturity departments were more likely to report providing tobacco-related education/training programs and referral to cessation programs. (Table 6).

Capacity. With regard to reported capacity to achieve national measures, CHBs with medium or high capacity were more likely to report 3 of the 10 tobacco related services. Those services related to community development (more than 50% of medium and high capacity vs. 27% low capacity), policy development (more than 60% of medium and high vs. 36% low capacity) and review youth surveillance data more than 70% medium and high capacity vs. 63% low capacity). A higher percentage of low capacity CHBs reported services such as providing educational materials and media, providing cultural/linguistic specific materials, and providing or referring to tobacco cessation programs.

Physical Activity and Nutrition

CHBs were asked to review a list of 7 community-wide interventions related to physical activity and nutrition, and identify those that were underway within the jurisdiction(s) served by the CHB during the reporting year (regardless of whether the CHB led or funded the initiative). CHBs were also asked to report on whether the CHB participated in two physical activity and nutrition activities: (1) an initiative to increase access to free or low cost recreational opportunities for physical activity (e.g., developing policies to increase access to public facilities for physical activity or increasing worksites that have policies that enhance physical activity), and (2 an initiative to increase access to healthy foods in the community. CHBs were also asked to report whether it allocated any funding to physical activity promotion in the reporting year.

QI maturity. When examining CHB activities by QI maturity level, CHBs with higher QI maturity were more likely to report conducting initiatives to create or enhance opportunities for physical activity and community-level urban design initiatives and less likely to provide individual health behavior change programs or social support interventions. (Table 7).

Capacity. When compared to CHBs that reported low levels of capacity, CHBs that reported medium and high capacity were more likely to report conducting activities related to (1) community-wide health stair use campaigns, (2) community social support interventions, (3) community-level urban design initiatives, and (4) access to healthy foods in the community. A higher percentage of medium and high capacity CHBs also reported allocating funding to physical activity promotion (50% and 64% vs 47%). The difference between low and medium/high capacity CHBs was at least 10%, and frequently approached 20%. (Table 7).

It appears there is some variation in specific activities and services by QI maturity level and PHAB capacity, however it is not consistently demonstrated for all of the measures within the chronic disease domain.

Table 6. Tobacco Related Activities of Minnesota Community Health Boards, 2012 (n=52 CHBs)	QI Maturity Level (column percentages)			Capacity Level* (column percentages)		
	Low n=9	Medium n=33	High n=10	Low n=15	Medium n=26	High n=11
Educational Materials						
Yes	88%	70%	70%	87%	62%	82%
No	11%	30%	30%	13%	38%	18%
Educational Media						
Yes	33%	45%	30%	53%	42%	18%
No	67%	55%	70%	46%	57%	82%
Cultural/Linguistic-Specific Materials						
Yes	22%	30%	10%	45%	23%	13%
No	78%	70%	90%	54%	79%	87%
Cultural/Linguistic-Specific Programs						
Yes	0%	88%	0%	9%	12%	0%
No	100%	12%	100%	91%	88%	100%
Provide Education/Training Programs						
Yes	22%	55%	50%	36%	58%	40%
No	78%	45%	50%	64%	42%	60%
Community Development						
Yes	44%	55%	30%	27%	54%	53%
No	56%	45%	70%	73%	46%	47%
Policy Development						
Yes	44%	64%	40%	36%	62%	60%
No	56%	36%	60%	64%	38%	40%
Provide or Refer to Tobacco Cessation Programs						
Yes	67%	79%	90%	91%	73%	80%
No	33%	21%	10%	9%	27%	20%
Review Adult Surveillance Data						
Yes	55%	64%	50%	64%	58%	60%
No	45%	36%	50%	36%	42%	40%
Review Youth Surveillance Data						
Yes	78%	73%	70%	63%	77%	73%
No	22%	27%	30%	36%	23%	26%

*Columns may not add to 100% because "Don't Know" was a response option. Shading reflects a difference of 5% or more in services reported by low capacity and low maturity CHBs, compared to medium and high capacity and maturity CHBs.

Table 7. Community-Wide Physical Activity Initiatives Underway within the Jurisdictions Served by Minnesota CHBs, 2012 (n=52 CHBs)	QI Maturity Level (column percentages)			Capacity Level (column percentages)		
	Low n=9	Medium n=33	High n=10	Low n=15	Medium n=26	High n=11
Community-Wide Health Education Campaigns						
Yes	56%	64%	60%	66%	54%	73%
No	44%	36%	40%	34%	42%	27%
Community-Wide Stair Use Campaigns						
Yes	0%	27%	20%	13%	23%	27%
No	100%	73%	80%	87%	77%	72%
School-Based PE Programs						
Yes	22%	48%	20%	33%	42%	36%
No	55%	39%	70%	53%	42%	54%
Social Support Interventions in Community						
Yes	78%	64%	60%	53%	69%	73%
No	22%	24%	40%	33%	23%	27%
Individually-Adapted Behavior Change Programs						
Yes	67%	61%	40%	53%	62%	55%
No	33%	36%	60%	40%	38%	45%
Initiatives to Create or Enhance Opportunities for Physical Activity	88%	94%	90%	87%	96%	91%
Yes	12%	6%	10%	13%	4%	9%
No						
Community-Level Urban Design Initiatives						
Yes	44%	82%	50%	53%	77%	73%
No	44%	15%	50%	40%	19%	27%

*Columns may not add to 100% because "Don't Know" was a response option. Shading reflects a difference of 5% or more in services reported by low capacity and low maturity CHBs, compared to medium and high capacity and maturity CHBs.

Table 8. Select Physical Activity and Nutrition Initiatives of Minnesota's 52 CHBs, 2012	QI Maturity Level (column percentages)			Capacity Level (column percentages)		
	Low n=9	Medium n=33	High n=10	Low n=15	Medium n=26	High n=11
Initiative to Increase Access to Free/Low Cost Recreational Opportunities						
Yes	56%	61%	30%	53%	58%	45%
No	44%	39%	70%	47%	42%	55%
Allocated Funding to Physical Activity Promotion						
Yes	44%	64%	20%	47%	50%	64%
No	33%	36%	70%	40%	46%	36%
Initiative to Increase Access to Health Foods in the Community						
Yes	77%	85%	70%	67%	88%	82%
No	23%	15%	30%	33%	12%	18%

Shading reflects a difference of 5% or more in services reported by low capacity and low maturity CHBs, compared to medium and high capacity and maturity CHBs.

Limitations

Chronic Disease. All of the measures included in this analysis rely on recall and self-report by Minnesota CHBs. Written reporting guidance and a web-based training were provided in an effort to standardize reporting. Nonetheless, differences in use and interpretation of the reporting guidance may have contributed to observed variation. Many measures assess whether or not CHBs provide several different local public health services, but do not address many other important dimensions of service provision, such as quality or quantity. Some statewide policies and/or initiatives may have uniformly increased statewide activity on some MPROVE measures (e.g., a statewide smoking ban and a statewide, community-based health reform initiative to reduce tobacco use and obesity in Minnesota), thereby reducing variation.

Minnesota specific analysis Organizational measures of capacity and QI maturity are specific to each CHB, whereas MPROVE measures of local public health services were more broadly focused to determine provision of services by public health departments and/or other partners in the jurisdiction. CHBs are accustomed to reporting to MDH only on the services provided by the CHB, rather than the combined services of all partners within the jurisdiction.

Environmental Health and Infectious Disease. Many factors may have influenced observed variation. The strong local role played by MDH in communicable disease control and prevention, as well as in environmental health activities, has likely contributed to low variation on many of the measures. The distribution of the population, and certain population subgroups, also influences case counts and the ability to create rates. Minnesota's population is largely concentrated in the metropolitan area of Minneapolis/St. Paul and surrounding cities, so in some instances, rates of certain indicators are only stable for those counties or CHBs because of number of cases and total population numbers.

Conclusions

Investigators drew on multiple existing data collection systems to compile data on the package of MPROVE measures. This study marked the first time that MDH and the PBRN compiled public health service data from across MDH into a single data set. This represents an important milestone in our shared commitment to make better use of existing to data to understand and improve Minnesota's public health system, and to use Minnesota's data to advance the national research agenda for Public Health Systems and Services Research.

For more information, refer to http://www.health.state.mn.us/ ran/publications.html or contact Beth Gyllstrom (beth.gyllstrom@state.mn.us) or Kim Gearin (kim.gearin@state.mn.us).

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