

Discussion, Limitations, and Conclusions

This section provides an overall discussion of the data presented here as they relate to the national PRC Program logic model and program indicators and to past recommendations from the Institute of Medicine (IOM)⁵ and the Association of Schools of Public Health (ASPH).⁶ The IOM report, published in 1997, reviewed the PRC Program and recommended increased evaluation efforts, adoption of a community-based approach to research and dissemination, and improved community input into the PRCs.⁵ In 2007, CDC asked the ASPH to review the PRC Program. ASPH convened a Blue Ribbon Panel, which developed a set of recommendations for the program.⁶ This section also describes limitations of the data and provides overall conclusions and recommendations.

Discussion

National PRC Program Logic Model

PRC Program indicators capture the main components of the program described by the national logic model (Appendix A). The indicator data presented in this report demonstrate that the PRC Program contributes substantially to public health practice and policy through research and training. Indicator data are now collected on an annual basis and will allow the PRC Program to assess these components over time and use them to set performance targets.

Inputs

Two input indicators analyzed for this report are 1) the amount of PRC annual funding by number of projects and funding sources and 2) the number of PRC community committee members by constituency, organization, and involvement.

Funding

Each PRC's core award is expected to cover infrastructure costs to help the PRC conduct core research, as well as grow and be competitive for funding for additional projects funded by CDC and other sources. The majority of PRCs were very successful in obtaining additional funding from a wide variety of sources.

- The total funding across all 33 PRCs was \$86 million, which is 3.5 times the \$24 million total of the core awards; one PRC had nearly \$13 million in total funding.
- Twenty PRCs had 73 funded SIP awards, and 3 PRCs had 10 or more SIP awards.
- Of the 13 PRCs with no SIP awards, 11 had awards from other sources and 2 PRCs had no additional funding.
- Funding from other sources comprised 40% of the total funding and came from a wide variety of sources, including CDC, NIH, and other federal agencies; state and local agencies; foundations; and academic institutions.

Community Committees

Each PRC is expected to have at least one community committee to provide guidance at the center level or for the core research project. All PRCs have community committees; most have several.

- Of the 87 community committees across the PRCs, 27 are center-level only, 23 are core research project-level only, and 37 serve both levels.
- Across all committees, there are 1,641 members. Committees that serve both the center and core research projects have proportionately more members than committees that serve at one level only.
- Community committee members represent a wide array of constituencies, organizations, and perspectives. Members are most commonly from academia, community-based organizations, community health centers or clinics, community residents, county or local government agencies, county or local health departments, health care or medical professional organizations, research centers, public health practitioners, and school or school-based organizations.

Activities

The main activities analyzed for this report are associated with two indicators: 1) the number of PRC core projects, SIPs, and other projects by study population, setting, and focus area and 2) the number of PRC trainings by audience.

Projects

All PRCs have at least one core project and most have additional projects through SIPs or through other funding mechanisms.

- Across the PRCs, there were 55 core projects, 80 SIPs, and 281 other projects. The majority were research projects: 48, 62, and 195, respectively.
 - Actual indirect cost rates do not affect the number of research projects.
 - PRCs in schools of medicine have a greater percentage of other research projects than do PRCs in schools of public health.
 - Of core research projects that focus on a racial group, most focus on African-American populations and white populations.
 - Of the core research projects that focus on an age group, most focus on adults.
 - PRC research projects take place in a wide array of settings and sites, including rural and urban areas, neighborhoods or communities, medical or clinical sites, and schools or school districts.
- Three-quarters of core research projects involve intervention testing; nearly half of all research projects test interventions.

Training Programs

PRCs are expected to develop and implement formal training programs for students, faculty, and community partners.

- PRCs implemented 99 training programs in fiscal year 2007.
- PRC training programs are aimed at a wide variety of audiences, including community members; community agency representatives; medical, nursing, or other health care students; project staff; and public health employees.
- PRCs in the highest funding tertile had more available training programs than PRCs in the lowest and middle tertiles.
- PRCs in the lowest and highest funding tertiles implemented more training programs than those in the middle tertile.

Outputs

The main outputs analyzed for this report are associated with three indicators: 1) number of PRC publications, presentations, and other products by peer review status and association with projects; 2) number of students trained by PRCs; and 3) number of people trained in formal training sessions by PRCs.

Publications, Presentations, and Other Products

- PRCs reported a total of 343 peer-reviewed and 526 non-peer-reviewed publications, presentations, and other products in calendar year 2007.
- A total of 379 publications and presentations were associated with core projects or SIPs.

Students Trained

- PRCs trained 707 students, 581 of which were graduate-level students, through research assistantships, independent study, practicum, internships, or fellowships.
 - PRCs in the highest funding tertile represent 36% of the PRCs, but trained 54% of students.
 - PRCs in schools of medicine represent 24% of the PRCs, but trained 40% of doctoral and postdoctoral students.

People Trained

- PRCs offer formal training programs to a wide variety of audiences. In fiscal year 2007, PRCs trained 4,777 people, including community agency representatives, public health employees, and public health students.
- PRCs in the lowest funding tertile trained substantially more people than did PRCs in the middle and upper tertiles.
- PRCs in land grant institutions trained substantially more people than did PRCs in public or private institutions.

Outcomes

The main outcomes analyzed for this report are associated with two indicators: 1) number of policy and environmental changes from PRC research by type of PRC involvement and 2) number of PRC-related recognition awards received by type of awardee and purpose of the award.

Policy and Environmental Changes

Both research and nonresearch projects can contribute to the creation or alteration of policies or environmental conditions related to health promotion and disease prevention.

- PRC core projects and SIPs resulted in 42 policy and environmental changes.
- Types of policy and environmental changes resulting from PRC projects included changing school wellness and smoking policies, creating bicycle lanes on city streets, and developing walking tracks and trails.
- PRC involvement included funding activities related to the change, participating as a partner on committees or work groups, and participating in surveillance or evaluation activities.

Recognition Awards

Recognition awards reflect honors or awards PRCs received for accomplishments of the overall PRC or one of its projects, staff or faculty members, or community partners.

- Forty-seven recognition awards across 15 PRCs went to faculty or staff.
- Most recognition awards were for the PRCs' community involvement (33) and science or research (30).

IOM and ASPH Recommendations

Recommendations of the IOM report⁵ that are reflected in the PRC Program indicators and collected as part of the national evaluation are presented in Table 44.

Table 44. IOM Recommendations and National Evaluation Findings

IOM Recommendations	Evaluation Findings
PRCs' findings should be published in the peer-reviewed scientific literature.	In calendar year 2007, there were 198 peer-reviewed publications.
PRCs should adopt a community-based approach to their research and demonstration efforts.	All PRCs have community committees; across the 33 PRCs, there are 87 committees.
PRCs should document the influence of their activities on public health research, practice, and policy, both locally and nationally.	In fiscal year 2007, PRC core projects and SIPs contributed to 42 policy and environmental changes.

Recommendations of ASPH’s Blue Ribbon Panel report⁶ that are related to future PRC Program directions are presented in Table 45.

Table 45. ASPH Blue Ribbon Panel Recommendations and National Evaluation Findings

ASPH Blue Ribbon Panel Recommendations	Evaluation Findings
PRCs need to secure additional funding from external sources.	In fiscal year 2007, PRCs received more than \$21 million in SIP awards, \$2 million in supplemental awards, and \$37 million in awards to support other projects.
PRCs need to enhance collaboration with community partners.	PRCs partner with a wide variety of constituencies and organizations, most notably community-based organizations, community residents, community coalitions, and schools or school-based organizations.
PRCs should disseminate their findings to a broad audience.	PRCs disseminate numerous products related to their core projects and SIPs, such as journal articles, conference presentations, conference posters, newspaper articles, reports, and numerous other formats.

Limitations

The indicator data provide substantial information to describe the PRC Program; however, the data have the following limitations:

- The data reflect a single year of data collection during the funding cycle and do not represent all years during the cycle. In addition, data entry became available midway into the year, and it is unclear how much retrospective data PRCs entered.
- The data are self-reported by each PRC, and few data were validated.
- Some PRCs found data entry to be burdensome and might not have entered some data. Limitations related to the burden of data entry include
 - PRCs did not enter all other projects.
 - PRCs did not complete all data entry for projects that they listed in the PRC IS.
 - PRCs did not enter some or all publications, presentations, or other products.

- During data analysis, it became clear that PRCs were confused about the type of data to enter in certain categories, specifically related to outputs and outcomes. Therefore, some indicator data could not be presented in the report, including
 - Number of PRC-tested interventions by level of effectiveness.
 - Number and types of PRC interventions recommended for use by national agencies or organizations.
 - Number of PRC-tested interventions available for dissemination.
 - Number of PRC-tested interventions that have been adopted.

Conclusions

The indicator data demonstrate that PRCs are extremely productive and meet their mandate to develop a research center that has appropriate infrastructure and administration, engages in community partnerships, communicates and disseminates research findings, provides training, and evaluates activities. Most PRCs use their infrastructure to grow their PRC and obtain funding from various sources to support additional research projects. They are engaged with community partners who participate in PRC community committees. PRCs publish in a wide variety of media and present at both scientific meetings and to other audiences, including their community partners.

Aggregate data from fiscal years 2007–2009 will be analyzed in the future. The current data can be used to develop benchmarks for performance for evaluating individual PRCs and the PRC Program overall. Benchmarks will enable the program to identify PRCs that need technical assistance.

Because of the data entry burden of the IS and confusion about the output and outcome data to be entered, the Program office staff are modifying the IS for the 2010–2014 funding cycle. The IS will continue to be used for program monitoring. Some indicator data will continue to be collected through the IS, but most will be collected through other formats, such as surveys, telephone interviews, and document review.

The data in this report provide quantitative evidence of the productivity of the PRC Program, which has never been systematically described before. These data provide a basis for future evaluation and the development of methods to better assess output and outcome data.