ESSAY/OPINION PIECE



News from the CDC: Scaling up sustainable intervention delivery—lessons learned from the CDC arthritis program

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ABSTRACT

Expanding behavior change programs into widespread use with meaningful population impact is a public health challenge. This report described the CDC Arthritis Program's strategic approach to fostering widespread availability and sustainability of community-based self-management education and physical activity interventions, and reviews common errors observed in efforts to disseminate and implement these interventions. The Arthritis Program strategic approach focuses on embedding interventions in delivery systems to facilitate spread and sustainability. Minimizing common implementation errors, such as pay-to-play partnerships, unsustainable delivery models, non-strategic growth strategies, nonselective training, imbalance between delivery and demand, infrequent interventions, and inadequate attention to data collection, can also enhance scaling

KEYWORDS

Interventions, Sustainability, Arthritis

up and sustaining behavior change interventions.

With the move to evidence-based public health practice, some public health programs are turning to packaged or ready-to-use intervention programs with documented effectiveness, and supported by "how-to" guides, instructor protocols, and training. One challenge with this trend involves expanding these individual behavior change programs into widespread use with meaningful population impact. Since its inception in 1999, the CDC Arthritis Program (AP) has focused on physical activity and self-management education interventions to address the physical and psychological impact of arthritis, including pain [1]. See www.cdc.gov/arthritis/ interventions for complete listing. A key strategy has been to fund state health departments (SHD) to develop state arthritis programs focused on expanding dissemination and implementation of these interventions.

Multiple evaluations have shaped the AP's strategic approach. Continuous observations are gathered by the project officer and scientific program monitor team assigned to each state program. In 2005, a multi-site evaluation cap-

tured state arthritis programs' experiences of their first 5 years of operation [2]. This information was considered by a panel of public health and chronic disease experts convened to provide recommendations to the AP in 2007 [3]. This report describes the AP's current strategic approach to fostering widespread availability and sustainability of community-based interventions to address arthritis, and reviews common implementation errors observed in SHD efforts to disseminate and implement these interventions.

OUR STRATEGIC APPROACH: EMBEDDING INTERVENTIONS IN DELIVERY SYSTEMS

Our strategic approach is to embed interventions in delivery systems, which requires an understanding of two key concepts: embedding and delivery system partners. We define embedding as the process of facilitating an organization's adoption of an intervention as part of the organization's routine business with resulting sustained delivery [4]. A delivery system partner is an organization that can disseminate interventions through multiple delivery sites to large numbers of people [4]. Ideal delivery system partners are organizations that serve constituents likely to have arthritis, have multiple sites for intervention delivery, have resources to support intervention delivery, and recognize that delivering the intervention could help them achieve their mission.

Hallmarks of this strategic approach include state health departments partnering with multiple organizations capable of delivering the intervention in multiple sites, delivery system partners "owning" the intervention delivery processes (i.e., have their own intervention leaders, schedule their own classes), SHD staff functioning as catalysts or brokers but not providing interventions directly, and CDC funds being used to offset start-up, but not ongoing operational costs. We anticipate that by embedding interventions within the routine operations of delivery system partners already serving people with arthritis, the interventions will be more easily available and accessible, and encounter fewer barriers to sustainability.

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Cite this as: *TBM* 2012;2:3–5 doi: 10.1007/s13142-011-0105-4

COMMON IMPLEMENTATION ERRORS

As the AP has worked with SHDs to expand the reach of evidence-based interventions in the community, we have observed a number of recurrent errors and ineffective implementation activities. These are briefly summarized below.

Establishing "Pay-to-Play" Partnerships—In these partnerships, intervention implementation costs are covered primarily through financial agreements with the SHD or other external funding source. Consequently, the partner organization has little investment in the intervention, and the intervention disappears when funding is no longer available. Limiting use of CDC funds to offset start-up costs, rather than ongoing operational costs, is one way of discouraging these "pay-to-play" partnerships that are unlikely to result in sustained interventions.

Investing in Unsustainable Delivery Models—Intervention implementation costs are driven up by tactics such as setting the expectation that the intervention has no cost, or using federal funds to pay large leader stipends or participant incentives; high implementation costs create barriers to sustainability. SHDs and their delivery system partners are encouraged to think through potential long-term financing strategies before they begin implementation, and to avoid reliance on federal or other grant funding as their long-term financing strategy. It is also important to utilize existing intervention delivery models; public health funds will never be adequate to build a new delivery model for each intervention that emerges.

Use of Non-Strategic Growth Strategies—While it is important to combine strategic growth, directed toward areas of need, and opportunistic growth, or taking advantage of opportunities that arise, some SHDs attempt to expand by simply adding sites, training leaders, or funding all potential partners. A more strategic growth strategy is to identify the population or locations where interventions are needed, and balance external growth (i.e., new partners or sites) with internal growth (i.e., increasing the number of sites within an existing delivery system, increasing the number of classes per site, and classes per leader).

Non-Selective Training-SHDs report that when they initiate an intervention they tend to "train any warm body," use minimal selection criteria to identify appropriate leaders, and think their job ends when a new leader is trained. While having an adequate supply of trained leaders is essential, this nondiscriminating approach to leader recruitment, training, and support has led to numerous leaders who are trained but never lead, or leaders who teach only once. Multiple SHDs have learned that more thorough screening of leaders is essential. In addition, only training leaders affiliated with a delivery system partner, requiring trainees to have their first class scheduled before attending training, and investing in leader support strategies all facilitate efficient leader recruitment and retention and ongoing intervention delivery.

Investing Only in Intervention Delivery, not in Building Demand—Enthusiastic intervention supporters may believe that "the program is so good it will sell itself," but many organizations have learned this is a myth. SHDs and others disseminating interventions need to focus on both expanding intervention delivery and building demand through marketing. Most SHDs find that multi-dimensional marketing strategies, including generating word-of-mouth recommendations, marketing interventions to health care providers and other referral sources, and mass media marketing, is required.

Offering Infrequent or Sporadic Interventions—Some organizations may offer the intervention just one or two times per year. This is problematic because an intervention with limited availability is not a reliable resource for referral sources such as health care providers. In addition, if a person interested in an intervention has to wait months before the intervention is available, their motivation may diminish before the intervention is offered. To become a reliable referral resource and to help meet individual needs as they arise, interventions need to be offered on a reasonably frequent basis.

Making Data Collection an Afterthought—In this era of accountability, it has become increasingly important to document use of resources through number of people served or other impact measures. Some SHDs have been quite successful at collecting data, such as numbers of courses offered and participants enrolled, while others have struggled to obtain this data. One critical element involves how data collection is introduced. SHDs who integrate both the value of the data collected and data collection procedures into leader training, and who make data collection part of the leader expectations, appear to have less difficulty getting data from the field.

CONCLUSIONS

The CDC AP's strategic approach to increasing the availability of, and participation in, arthritis-appropriate physical activity and self-management education interventions has evolved to a focus on embedding interventions in delivery systems to facilitate wide-scale spread and sustainability. Observations from the field have identified a small number of recurrent implementation errors; minimizing these will enhance scaling up and sustaining these important public health interventions.

Disclaimer: The findings and conclusions in this report are those of the authors and do not necessarily represent the views of the Centers for Disease Control and Prevention.

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