

Learning From Others

A Literature Review And How-To Guide From
THE HEALTH PROFESSIONS PARTNERSHIP INITIATIVE



Lessons in linkages for K-12 schools, universities, medical institutions, communities, the health professions, and others interested in increasing minority representation in health careers through educational partnerships

About the Health Professions Partnership Initiative

In 1996, the Association of American Medical Colleges (AAMC), along with The Robert Wood Johnson Foundation and the W.K. Kellogg Foundation, embarked on a unique, long-term effort to increase the representation in the health professions of African Americans, Hispanics, and Native Americans, as well as other educationally disadvantaged students.

The Health Professions Partnership Initiative (HPPI)—which grew out of the AAMC’s *Project 3000 by 2000*—challenged U.S. health-professions schools to link with neighboring colleges and K-12 school districts to improve curricula and educational programs in ways that will prepare and attract more underrepresented minorities into health careers. To this end, HPPI provided health-professions schools with funding and help in forming educational partnerships in their local communities.

The goal of HPPI—in other words, the end of the health-professions educational pipeline—was for students to enroll in medical, nursing, pharmacy, dental, public health, and other health-professions schools. HPPI projects were put in place at all points of the pipeline, with most of them concentrated on the early stages of education.

Three rounds of grants—in 1996, 1998, and 2000—were awarded to 26 health-professions

Health Professions Partnership Initiative (HPPI) grants, by funding round:

Round 1

(awarded in 1996 and concluded in 2001)

Funded by The Robert Wood Johnson Foundation:

- University of Connecticut Health Center
- Medical College of Georgia School of Medicine
- University of Louisville Health Science Center
- University of Massachusetts Medical Center
- MCP-Hahnemann School of Medicine
- University of Nebraska Medical Center
- University of North Carolina at Chapel Hill
- Oregon Health Sciences University
- Medical University of South Carolina
- University of Wisconsin Medical School

Round 2

(awarded in 1998 and concluded in 2003)

Funded by The Robert Wood Johnson Foundation:

- Mount Sinai School of Medicine
- University of Pittsburgh Medical Center

Funded by the W. K. Kellogg Foundation:

- University of Kansas Medical Center/University of Missouri
- University of Michigan
- Western Michigan University
- University of Texas Health Science Center at San Antonio

Round 3

(awarded in 2000 and concluding in 2005)

Funded by The Robert Wood Johnson Foundation:

- University of Alabama at Birmingham School of Medicine
- Yale University School of Medicine
- Emory University School of Public Health
- University of California-Berkeley School of Public Health
- University of Illinois at Chicago School of Public Health
- University of Oklahoma School of Public Health
- University of South Carolina School of Public Health

Funded by the W.K. Kellogg Foundation:

- Arkansas State University College of Nursing and Health Professions
- Creighton University School of Medicine
- University of California-San Francisco – Fresno
- Latino Center for Medical Education and Research

schools: 18 medical schools, 1 school of nursing, 1 school of allied health, and 5 schools of public health. These institutions then set about forming linkages with undergraduate colleges and universities, magnet and community high schools and K-12 school districts, and community organizations, such as Area Health Education Centers, businesses and professional organizations, and local health departments.

The HPPI model was based on established research showing that minority students share the same level of aspiration to health careers as majority students but typically do not receive the secondary education necessary to ensure their success. Academic enrichment programs alone do not provide enough educational content to make a difference in academic performance; adding social and motivational components has been shown to help these efforts succeed.

Each HPPI partnership appointed a coordinator tasked with planning activities that strengthen linkages between and among the lead academic health center and partnering institutions. Many of these strengthening activities focus on academic enrichment for K-12 students, such as tutoring, summer science-immersion programs, and test-taking skills. Other enrichment activities center on stimulating student interest and knowledge in the health professions.

From its outset, HPPI acknowledged that developing effective partnerships is not a simple task. It requires all partners to be fully engaged in conducting needs assessments, setting goals, planning and conducting programs, and building governance.

A NOTE ABOUT “PIPELINES”

A key lesson learned over the course of the HPPI grant program is the importance—and limitations—of the “pipeline” concept. The idea that a discrete cohort of specific students can be tracked and enriched from early education through college is attractive in theory, but it is not always practical. The most successful partnerships do not focus on a single group of students. Instead, they create broad pipelines with numerous entry points for students throughout the educational continuum. These programs put the focus on improving education for all students, not just a single, select group.

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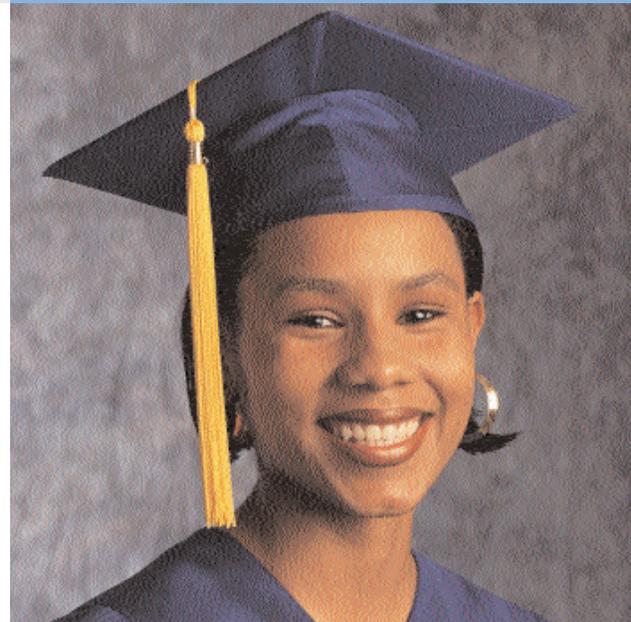
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About This Literature Review And How-To Guide

ABOUT THIS LITERATURE REVIEW AND HOW-TO GUIDE

Boosting the number of African Americans, Hispanics, and Native Americans in health-care fields is critical to meeting the needs of America's increasingly diverse society, as well as to raising the cultural competence of all practitioners.

Despite a plethora of programs and a vast amount of resource investment, the proportion of underrepresented minorities entering the health sciences has not dramatically improved. For example, in 1980, African Americans, Hispanics, and Native Americans comprised 11.3 percent of entering medical students. In 2003, the proportion of entering students from these same groups had increased to only 13.2 percent.

Three explanations for this disappointing phenomenon are possible:

1. Successful programs that have been lauded and mined for best practices are rare—not representative—and they don't give a true picture of such programs' overall effectiveness.
2. Existing programs are effective, but there aren't enough to make a significant impact on a problem that is far more entrenched than originally thought.
3. Without the existing programs, underrepresented minority presence in the health professions would be even smaller than it is now.

These last two explanations seem the most likely and illustrate the same point: Programs do work, but many more are needed.

Increasing the numbers of underrepresented minority health-care providers is an important yet complex challenge. Research indicates that students' interest and motivation for health careers isn't a barrier to participation. Studies show underrepresented minorities are just as interested and driven as non-minorities—often more so. But poor academic preparation starting early in life *is* a major barrier to minorities entering training for health careers.

Given the limited resources and experience health-professions schools can devote to remediating this situation, educational partnerships throughout the education pipeline seem to be the most realistic option for working toward sustained changes that could yield results. Such arrangements are in keeping with the increasing involvement of medical schools and teaching hospitals in community-outreach efforts.

The contents of this guide were derived from a thorough review of the existing scholarly literature on educational partnerships from 1980 through mid-2002, drawing on a wide variety of cooperative experiences among schools, communities, businesses, and higher-learning institutions with goals to improve educational opportunities and outcomes in K-12 education. The project-snapshot quotations throughout come from the experiences at Health Professions Partnership Initiative (HPPI) sites.

This guide takes a detailed look at the elements of partnerships—how partner relationships function and how they attempt to solve problems—in the hopes that it will illuminate best practices in the partnership process and the programs that result.

- The first section generally explores the process of partnering.
- The second section reviews the types of strategies commonly used to increase minority student achievement, with an aim toward identifying best practices for public school/higher education health professions partnerships.
- The guide concludes with overall recommendations for implementing partnerships, program strategies, and evaluation.

The full academic literature review that is the basis of this document can be found at www.aamc.org/partnershiplitreview/

The contents of this how-to guide come from a review of the literature on educational partnerships. The project snapshots come from HPPI sites.

Key Findings

Several main points emerged from the literature review on partnerships.

- Programs focusing on improving academic preparation must start early in a student's life, must be intensive, and must persist during all levels and grades of schooling.
- Programs that work and resonate with teachers and school systems pose greater opportunities for significant change and educational improvement than do programs focusing on individual students. Such systemic improvements directly benefit administrators, teachers, and the school curriculum; individual students benefit indirectly from these efforts.
- Systemic school reform and improvement—in contrast to simply establishing health-science clubs and presenting career days—require significant resources and commitment from partnering organizations.
- For health-professions schools to successfully partner with K-12 schools, an across-the-board acceptance and understanding of the unique cultures, skills, and goals of each member is required. The services and resources offered should be those sought and valued by the partners, not those imposed by one partner on another.
- Good partnerships are transforming to all members. Changes flow to the partners who offer the most resources, as well as to those who are “receiving” members.



The Partnership Process

THE PARTNERSHIP PROCESS

Leaders of health-professions institutions are beginning to understand and accept that insufficient academic preparation leads to insufficient numbers of minority health professionals. But true partnerships to improve academic preparation begin to form and cement only when these leaders begin to consider their institutions as part of a single, holistic education system—rather than as a singular entity that passively accepts or rejects whatever caliber of student K-12 and undergraduate school systems produce.

The Power of Partners

Stand-alone or independent programs sponsored entirely by health-professions schools, without the involvement of other institutions, are usually less effective than true partnerships. Independent efforts tend to draw their identities wholly from the health-professions schools that sponsor them; as a result, they demand very little institutional commitment or insight on the part of public schools. These programs tend to work primarily with individual students drawn from dispersed geographic areas, and they offer relatively brief exposures to the health professions.

Partnerships, on the other hand, require a much higher level of institutional commitment and involvement by both health-professions schools and public schools. They usually put in place a more comprehensive package of interventions, planned in collaboration with the target school or school district.

Insufficient academic preparation leads to insufficient numbers of minority health professionals.

Independent programs sponsored entirely by health-professions schools—without the involvement of other institutions—are usually less effective than true partnerships.

Through partnerships, health-professions institutions may work to improve K-12 and undergraduate education in one or more of the following ways:

- provide career information and counseling
- support individual career aspirations
- support individual academic achievement
- support science education
- support general school reform

Partnerships may create change on multiple levels—from the individual to the institutional. They can focus narrowly on student enrichment, or they can form an element of large-scale public school reform initiatives.

The first three of the bulleted aims listed here are student-centered strategies; the last two are school-centered strategies. The two types are not mutually exclusive, however; school-centered programs can incorporate student-centered strategies as components of the larger partnership initiative.

Partnerships may implement any or all of these aims, but the partnerships themselves tend to be more school-centered in their approach. They may also be politically riskier for higher-education institutions. The larger the scale of interventions and the further back they reach into the educational pipeline continuum, the less immediate and visible are the returns on investment.

DIFFERING CULTURES

Other challenges come about because partnerships essentially require creating a new entity with a new culture that is distinct and somewhat foreign to the organizations that fashion it. This situation creates a host of challenges on multiple levels, from institutional and regulatory constraints to the vagaries of individual personality.

Rather than complementing each other as part of the same enterprise—or as segments of the same pipeline—the tendency is for public schools and higher education to slip into adversarial relationships. Cultural discontinuities often trigger problems in setting up partnerships, leading to entrenched distrust and, ultimately, failure.

PROJECT SNAPSHOT:

We didn't come to the table with a missionary approach; we came with a sketch. We showed the ideas we had and asked for more. We started by meeting with the leaders of each institution first, alone, to solicit their ideas. By our first group meeting, we had a collaborative proposition and we could talk about how to move forward. All of the early meetings were really working meetings. We started meeting monthly, then quarterly, now it's twice a year; the meeting agenda enables everyone to talk.

Katherine A. Flores, M.D.

Director

University of California-San Francisco – Fresno Latino Center for Medical Education and Research

School-university relationships also may be loaded with the weight of past problems when working together. For example, public-school personnel may feel threatened by outsiders, or they may be skeptical about what a university has to offer and how committed it is to long-term involvement; they have learned from hard experience that enrichment programs from the outside come and go, and funding is unstable.

Cultural discontinuities can trigger problems when setting up partnerships.

INSTITUTIONAL CULTURE CLASHES TYPICALLY FALL INTO SEVERAL PREDICTABLE CATEGORIES:

Teacher vs. Professor: This most basic disparity arises out of the daily experiences of public-school teachers and college faculty. In contrast to teachers, college faculty have lighter teaching loads, smaller classes (with the exception of large lectures, for which they usually have assistants), and more flexible schedules. Their students are better prepared academically and less in need of behavior management. College faculty also have greater freedom in selecting teaching materials, and they operate with less external oversight.

While college faculty are typically evaluated by peers and students, public-school teachers are evaluated by superiors. Promotion criteria differ as well. In higher education, research and publication define success; in public schools, teachers are judged by student performance.

Finally, and crucially, faculty receive greater employment compensation and amenities than do public-school teachers.

One way to bridge the culture gap between college and public-school personnel is to involve higher-education faculty in providing services directly to K-12 students. Having this shared experience teaches college faculty about the real challenges that K-12 teachers face, and it enables them to gain some credibility. But be sensitive to the reality that universities are not designed for providing direct services to public schools; faculty might be more effective in interventions that promote systemic change, such as curriculum revision and teacher preparation.

Administrative Issues: When college administrators don't recognize and appreciate their own level of autonomy and fiscal latitude, they can become frustrated by public-school partners' seeming lack of creativity and flexibility. Leading a college tends to be a reflective and participatory process; running a public school is likely to be more autocratic and reactive, with principals clearly in charge.

Culture gaps can be bridged by involving higher-education faculty in services directly to K-12 students. This shared experience teaches college faculty about the real challenges that K-12 teachers face and provides a basis for credibility.

Being excluded from governance processes rankles college faculty, but public-school teachers expect a more limited role in decision-making. In addition, college boards of trustees let college leaders worry about the details, while school boards exercise more “hands-on” control of policy implementation.

One place these differences are sure to collide is in hiring new personnel to achieve partnership objectives. Partnerships often require new approaches to teaching and learning that may mean bringing on board people with non-traditional credentials or experience. Higher-education partners may become frustrated by public-school bureaucracies and union regulations that restrict hiring, promoting, and transferring key staff.

Questions of Scale and Resources: The scale of a partnership project—how many institutions to involve, whether to work with individual schools or with districts, which alliances to cultivate, how radically to attempt changing educational systems—involves a set of tough decisions that need to be made within the context and scope set by the local community and state education environment.

Although partnerships can be a force for macro-level change that affects local and state policies and institutions, the partnership usually must bend and adapt to the world it inhabits, at least in the early stages. This is why the question of the partnership’s focus—whom to engage and what kinds of interventions to implement—is so critical. Ultimately, it becomes a choice of how many challenges a partnership can realistically take on at every level, from the local community to statewide policies and budgets.

Regulatory Environments: Public-school bureaucracy is just one of many external forces that may either augment or limit partnership activities. Partnerships that involve basic-level school reform efforts, rather than limited interventions, are more likely to run up against state or district policies that restrict experimentation, unless the actions are backed by legislative mandates. Unions and other

The scale of the partnership project involves a set of tough decisions.

community pressures may further affect staffing choices and flexibility during partnerships.

Institutional Focus: How can a partnership balance the need for school-level change with the priorities of school boards and superintendents? Deciding on the partnership's focus may require involving decision-makers who are not active members of the partnership, but whose priorities take precedence over those of the partnership itself. For example, a school-level focus usually means working with principals and teachers in certain schools, yet district-level staff need to be kept informed, especially as they can be strong advocates for change.

IN DETERMINING THE SCOPE OF THE PARTNERSHIP, THERE ARE TWO SCHOOLS OF THOUGHT:

- ***Play it close.*** Don't reach too widely or too high in the educational hierarchy. Participants on the ground can more easily recognize signs of progress. Communication can also take place more efficiently and non-bureaucratically when linkages between institutions are short and closely held.
- ***Don't put all your eggs in one basket.*** Work with a large group of schools or school districts, casting a wider net and increasing your chances that at least some schools will take up the cause enthusiastically. In addition, superintendents (or school principals) can exert peer pressure to keep each other active in the partnership.

Availability of Resources: The question of scope and scale fundamentally depends on the resources available to the partnership. Spreading resources too thinly over schools and districts can dilute any appreciable impact. On the other hand, investing heavily in one school is a high-risk venture that can either bring complete failure or succeed in pushing a school across the threshold of success through the sheer critical mass of resources.

Deciding on the partnership's focus may require involving decision-makers who are not active members of the partnership.

Besides money, other key resources in play are leverage and prestige—the positions held by the partnership’s lead individuals and lead institutions within the hierarchy of the larger educational system. Their relative positioning—whether high or low—will play a part in determining the scale of partnership activity.

Partner School Characteristics: The characteristics of individual schools constitute another resource or constraint that determine a partnership’s success.

School size and grade-level matter. Small schools are easier to manage, but they may lack certain kinds of resources or services. Larger schools can facilitate greater program specialization, but specialization is not an unqualified benefit. Secondary schools, with their separated, specialized subject matter, can be more difficult to work with than elementary schools. Partnership literature indicates that systemic school reforms may be easier to carry out at earlier levels of the educational system unless, that is, schools have innovative management structures that span subject disciplines and focus on the full school experience. At the same time, when interventions in secondary schools directly target specific subjects, they may not face the same difficulties.

School quality matters, too. Partnership leaders should carefully evaluate whether a school can improve, or if poor administration and teaching are too pervasive to repair. This question, of course, presents an ethical dilemma, as those who would “leave no school behind” find this kind of triage unacceptable. However, a partnership needs to assess realistically what kinds of schools it has the resources to help. It needs to recognize limitations—its own and the partner schools.

A benefit of partnerships that include health-professions schools is that they tend to draw attention and resources to school districts. Health-professions schools enjoy a status that can leverage and multiply the effects of limited resources.

The partnership needs to assess realistically what kinds of schools it has the resources to help. It needs to recognize limitations—its own and the partner schools.

PROJECT SNAPSHOT:

Yale liked the idea of one partner school to help the process be more focused and targeted. The university's belief was if it is going to be involved in the community, it should be selective. At the Hill Career High School, the cooperation was there. The school principal has a lot of credibility with the school board, students, and parents, and it's a well run school. It's open to innovation. It was perfect to be a health-careers magnet school to partner with us.

*Forrester "Woody" A. Lee, M.D.
Professor of Medicine
Assistant Dean for Multicultural Affairs
Yale School of Medicine*

PARTNERSHIP FORMATION: LAYING THE GROUNDWORK

The first steps of creating a partnership are the most critical. At this time, leaders must make hard and fast determinations about the interests of each institution, they must recognize the perceived risks and benefits that schools and universities will face, and they must understand the implications of these circumstances in shaping a common set of goals. Among these first steps:

Identify Institutional Missions: Before signing on to the goals and activities of partnership, each member institution must identify and understand how the partnership will satisfy its own needs. But this requires that key personnel be able to articulate the wishes and goals of their respective organizations. Key questions are: Does each partner have the quality and integrity needed to commit to and participate in the partnership process? Does an institution have a clear enough vision of its own before it tries to get together with others to develop a shared vision?

Before committing to the goals and activities of partnership, each member institution must identify and understand how the partnership will satisfy its own needs and mission.

Even more important, should prospective school partners have pre-existing goals of their own, or should developing institutional missions be one of the tasks of partnership? There is no obvious answer to this chicken-and-egg dilemma. Without some awareness of its own mission, an institution cannot commit to joint action with external parties. At the same time, if successful, the partnership will reshape all of the constituents' missions.

Identify Common Goals: Lack of common goals that address everyone's needs can make a partnership more of an intrusion than a resource. It's fairly easy for most parties to proclaim that they want to improve minority or at-risk student outcomes, but such goals must be expressed more comprehensively and include a brightly lit pathway of logical steps.

The various partners must also determine which of them "owns" the problem, either individually or jointly. Identifying those willing to take responsibility will help determine the scope of the solutions that can be entertained and suggest appropriate methods for attaining goals.

Identifying common goals will also determine choices of potential partners. In considering how wide a net to cast, there is always a tension between seeking the expanded resources of diverse constituents and having too many interests to satisfy. While finding common *goals* is important, finding a common *denominator* among all parties will yield only goals that are a low priority for most of them. It's better to allow each member to work on its own high-priority issues and allow partnering to occur naturally among those whose self-interests overlap.

This means seeking to please some of the members most of the time rather than trying to please all the members for only a small part of the time. It is not reasonable to expect all parties to display the same high degree of commitment to the partnership, and individual commitment can fluctuate over time. Involvement and

Goals must include a brightly lit pathway of logical steps for getting there.

Involvement and commitment will ebb and flow.

commitment will ebb and flow. Some members will carry the banner at all times, even if they are not always the same members.

More radical systemic reforms are probably possible only when all partners are committed to a goal on multiple levels.

PROJECT SNAPSHOT:

In choosing partners, we looked for places where people had influence, money, talent, and time. We rejected partners if they didn't have at least some of these, but we also rejected those who never put their actions where their mouths were.

*Patricia A. Thomas, M.D.
Associate Dean for Cultural Diversity and Enhancement
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The literature finds that in less-successful partnerships, members had difficulty understanding what the partnership was or agreeing on the goals. Each change in leadership meant repeating the process of establishing and internalizing a common set of goals and direction. Merely agreeing on a mission statement does not predict that a partnership will establish a true direction or consensus.

Clear goals are important not only for the parties themselves, but as a means to attract the support of external allies to the cause, including those with the power to contribute resources or set policy favorable to the partnership. When partnerships do not have a clear set of goals, stronger bureaucratic priorities—such as legislative standards or achievement testing—tend to drive the educational agenda.

Clear goals are essential.

On the other hand, adhering too strictly to stated goals can stifle a partnership's success. Flexibility is needed in any loose collaboration where learning is occurring and structure is being developed. Therefore, in the early stages, carrying out joint activities may be more important than well-defined goals or structures.

Playing for Different Stakes: Prioritizing issues or establishing an agenda for a partnership often unleashes strong personal feelings and beliefs on all sides. Take, for example, the differing values of schools and universities with regard to societal responsibility. Public schools are almost overloaded with societal demands. In contrast, the university system seems to share much less, if any, responsibility for handling societal demands. These differences often touch off issues of mistrust and throw up barriers to partnering.

What do universities and public schools have at stake, and how do their concerns affect the degree to which they "buy in" to a partnership agenda? The question becomes even more complex in institutions where one set of constituents, such as the administration, may buy in, while another, such as the faculty, does not.

When universities lead partnerships, their influence helps raise the partnership's profile, both locally and broadly. They can act as the organizing force that draws in support from other sources. However, the practical reasons for a university to commit to a partnership venture are often tenuous.

One frequently touted benefit is the recruiting advantage:

Universities can improve the qualifications of their applicant pool and simultaneously gain publicity, thereby attracting more applicants. But many believe this benefit is overstated, as the costs of partnership typically eclipse any improved recruitment yield.

On the other side, an obvious motivation for public schools to join partnerships is seeing improved student performance, but this isn't much of a selling point either. Schools often have alternative

Flexibility is needed in any loose collaboration where learning is occurring and structure is being developed.

When universities lead partnerships, their influence helps raise the partnership's profile, both locally and broadly.

resources that make using any one source—like a partnership—less attractive. Administrators may also worry about threats to the status quo that a partnership might pose. Further, a program that hinges on student achievement puts the school’s or district’s reputation on the line. If it can’t show results for efforts made, the fallout may well damage the budget.

Interestingly, a partnership that becomes demonstrably successful can have a negative impact on a school if it means loss of eligibility for “at-risk” funding from other sources. Well-intentioned universities seeking public-school partners may fail to understand the risks that public schools face by participating.

BUILDING PARTNERSHIPS THAT FUNCTION

The challenges that affect partnership formation continue to be factors in its success or failure long after the enterprise has been established. Some of the most common of these are outlined below.

Power Structures and Power Sharing: Given the differences between public schools and universities, coupled with the potential costs of partnering, it’s essential to build relationships based on mutual trust and respect. But true equality among partners is almost impossible to achieve. In fact, establishing any kind of productive working relationship between higher education and public schools is a significant accomplishment in itself. Universities and public schools do not have the same interest or urgency in improving public schools, and it may be unrealistic to expect both to commit equally to the same goals.

Though true equality may be elusive, successful partnerships do not ignore the importance of power relations. Underpinning every partnership are several structural power bases—some that have a

Well-intentioned universities seeking public-school partners may fail to understand the risks that public schools face by participating.

Relationships must be built on mutual trust and respect.

Universities and public schools do not have the same interest or urgency in improving public schools, and it may be unrealistic to expect both to commit equally to the same goals.

positive impact and some that foster chaos. These power bases can either aid or undermine establishing egalitarian relationships between higher education institutions and public schools. They are:

- **Partnership governance.** Governance structures can promote greater equality in the form of shared decision-making. A participatory model of partnership ensures that all partners are represented on important committees and in important decisions, beginning with developing primary objectives and strategies.

Once goals have been identified and partners are working together, partners can begin to focus on a manageable agenda by breaking larger goals down into achievable objectives, component strategies, and discrete activities. A task-force approach—creating teams across partner institutions—can work well to promote equality, but only if the work is done dynamically, in real time. Task forces tend to be unproductive and slow to consider issues if they work in isolation. Instead, a task force should tackle partnership business in working meetings of the whole partnership board, engaging participants in critical discussion of the issues and moving forward decisively.

- **Partnership funds management.** Just as critical as adequate funding is the way those funds are controlled. Administering partnership funds has both symbolic and practical implications for establishing balance between member interests. The institution receiving funds tends to be seen as the lead, and this image may translate into that institution receiving credit or blame for partnership success or failure.

Underpinning every partnership are several structural power bases.

A task-force approach can work well to promote equality, if the work is done in real time and moves forward decisively.

Administering partnership funds has both symbolic and practical implications.

PROJECT SNAPSHOT:

The only thing we would do differently, I think, would be to deal earlier with the issues about the on-going challenges of funding and sustainability. We probably would begin looking for more sources of funding in the second year of the project—or at least identifying the sources to approach once we began to build a track record.

*Robert Layne
Program Coordinator
Worcester Pipeline Collaborative
University of Massachusetts Medical School*

Grantors traditionally provide funds to universities as the lead institutions, probably because of their material resources, prestige, and expertise. But funding agencies might also consider applications from public school systems, so that the initiative comes from the place where change will be focused, and stipulate that they partner with the appropriate higher education institutions. This strategy might help solve the problem of public school buy-in. But assuming that funding will continue to flow first to universities, schools should select university partners according to their degree of commitment to minority students, their ability to develop minority health-care professionals, and their demonstrated experience in community-outreach activities.

The flow of funds affects the way the partnership looks and functions for its members, as well as how it appears to outside observers. The partner that receives the funds from the grantor must address the perception that it wields a disproportionate share of power; further, it must also ensure that it does not take excess control. True joint control of resources among parties helps prevent power imbalances that can undermine cooperation and equality.

True joint control of resources among parties helps prevent power imbalances that can undermine cooperation and equality.

- **Teacher power.** Cooperation of public-school partners is fundamental to all partnership activities, and teachers drive that cooperation. Teachers make or break a partnership—many failed partnerships discovered too late that these individuals wield the ultimate “punishment power” by not cooperating with, or even undermining, the work of more enthusiastic participants.

University partners should not assume that teachers will automatically value the resources they can provide, since schools probably already have their own programs to address the needs of at-risk students. Unless clear benefits are offered to teachers, universities can find themselves in a weakened power position. And while universities can't completely escape these built-in power imbalances, they can remedy some of the disparity by cultivating powerful and supportive allies in the public school system. These relationships should include administrators (who exercise real power over school operations) and teacher-peers with moral authority and credibility (who can influence the opinions of other teachers about the partnership).

Teachers make or break a partnership. Give them an influential voice in the partnership by establishing—and making use of—a teacher advisory committee.

PROJECT SNAPSHOT:

Building a relationship with teachers is key in the success of program implementation. A relationship with teachers can provide system administration, school, student, and classroom access. Teacher input on curriculum needs provides the necessary foundation for program design and development. We've found that working with teachers was imperative to adapting our program to ensure state curriculum guidelines are being met.

*Shirley Sanders Ginwright
Program Director, Center for Community
Outreach Development (CORD)
University of Alabama at Birmingham*

While recognizing that teachers hold real power in being able to thwart the aims of partnership leaders, any behavior that could be construed as teacher bashing is counterproductive, as well as a clear sign that project directors lack a deep understanding of partner relationships. University partners must actively build trust and credibility with teachers and foster equal relationships between them and university faculty. Be aware that most teachers' university experiences occurred during their student days, when they were subordinate to faculty. University staff can level the field and promote teacher trust through frequent interaction and by guaranteeing them a voice in the partnership. Establishing—and using—a teacher advisory committee is a good way to bridge this gap.

Universities might also consider using public-school personnel to teach university courses or provide other kinds of services. This may be more difficult to arrange in health-professions school settings, although teachers could provide seminars on, say, the nature of child behavior in a school setting and the role of health education.

The larger point is that higher-education institutions should look beyond changing public schools; universities themselves must examine and change the way they do business as well.

- ***Parental involvement.*** Public school and university partners need to be mindful of parent, community, and corporate interests. It's a good idea to assess potential public-school partners for policies about parent involvement and for the state of parent-teacher relations. Schools should provide a variety of ways for parents and teachers to meet; lack of parental participation is a sign that parents have not been incorporated in a meaningful way. This may be caused or exacerbated by an environment where parents feel anxiety about programs that raise expectations, only to disappear

Higher-education institutions should look beyond changing public schools; universities themselves must examine and change the way they do business as well.

later without a trace, and where teachers may be wary of the involvement of “outsiders”—parents and community members—who they might feel threaten their sense of expertise and control.

Schools need a system to mediate parent-teacher conflict. They should also continuously monitor the family-friendliness of their policies by getting ongoing feedback on parents’ impressions of the school atmosphere and its communication efforts.

PROJECT SNAPSHOT:

To foster parent involvement, during meetings and conferences, we had translators available in three languages: English, Spanish, and Hmong.

*Gloria Watts, M.Ed.
Education Director
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- ***Corporate and community involvement.*** Partnerships that seek to address popular local concerns are often the most successful. However, the issue of how much community involvement is necessary—or even desirable—is a touchy one. A careful balance must be struck between encouraging community involvement and allowing the community to set priorities. Similarly, partnerships should court corporate donors while curbing the benefactors’ desire to become over-involved as a way of satisfying their own agendas. Ultimate control over policy and practice should reside in educational institutions as the parties who have the expertise and who must live with whatever changes they make.

Schools should continuously monitor the family-friendliness of policies

A careful balance must be struck between encouraging community involvement and allowing the community to set priorities.

Leadership: Setting priorities and achieving a constructive relationship between partners is a major function of leadership. Effective leadership is integral to establishing an agenda to which partners can commit—and to carrying out planned activities. At least one of the partnership members must bring forceful leadership to the collaboration.

Partnership directors should come from the higher-education community for reasons of clout and prestige; someone close to the dean is desirable, even more so if it's understood that the person is implementing the dean's priorities. Regardless of the director's own credentials, she or he needs the backing of a dean to deal with others who may have higher credentials, salaries, or other status.

At the same time, being part of the higher-education establishment is not sufficient—leaders must also know the public-school system and respect teachers. A partnership director who is experienced enough in the various cultures within the partnership can act as a "boundary spanner," moving freely among them with enough credibility and understanding to negotiate and translate.

Another fundamental issue is whether the majority of the members on the partnership council occupy stable positions within their home institutions. Personnel changes constitute one of the most significant barriers to partnership continuity. At worst, it can lead to complete disruption of a partnership's basic activities. Dealing successfully with the problem of succession requires effort, even in the most established partnership. Newly appointed leaders from key organizations may not hold the partnership as a high priority, so bringing new representatives on board means socializing them to the partnership's aims and activities. New blood may also require a change in a partnership's direction when recent entrants advocate for their own visions and priorities.

Partnership directors should come from the higher-education community for reasons of clout and prestige; someone close to the dean is desirable.

A "boundary spanner" can move between the higher-education establishment and the public-school system.

A partnership council must deal successfully with personnel changes and succession.

PROJECT SNAPSHOT:

Maintaining interest is challenging when there are changes in leadership. New leaders will have a different level of interest. You have to knock on doors again and do some one-on-one. If you forget to do this—you'll get burned: They'll start asking challenging questions at meetings, and you'll wish you'd spent time briefing them before.

Katherine A. Flores, M.D.

Director

University of California-San Francisco – Fresno Latino Center for Medical Education and Research

INSTITUTIONALIZATION: THE PARTNERSHIP GROWS UP

While a good beginning with strong leadership is important, maintaining and institutionalizing the partnership is critical. As a partnership ages and grows, the natural relaxation of energy and focus can impede or destroy momentum, so partnerships must constantly address the degree of partners' long-term commitment.

The greatest difficulty of institutionalizing a partnership is that it typically has little leverage inside each of the member organizations. Especially if partnerships do not address key goals of the partnering institutions, they tend to be treated as marginal or peripheral. This marginality may be even more pronounced for health-professions schools attempting to work with public schools. In part, this can be because of unsupportive faculty, but it is also because program activities often take place outside of academic departments, making them invisible to the core members of the health-professions institution.

As a partnership ages and grows, the natural relaxation of energy and focus can impede or destroy momentum, so partnerships must constantly address the degree of partners' long-term commitment.

Traditional divisions between a university's academic and student services also work against cooperation. Effective programs must be part of the *whole fabric* of academic departments, garnering cooperation of mainstream faculty and administration. Departments can effectively launch programs, but only university leadership can ensure long-term stability. Participating faculty often feel frustrated when their partnership involvement is not valued in a tangible way. University leadership can demonstrate its commitment to the partnership by linking participation to faculty tenure or promotion guarantees. In successfully functioning partnerships, university faculty members are expected to be involved, providing their time and resources. In this way, partnership activities become embedded within the university culture. In larger universities, department chairpersons assume additional importance, so their commitment is equally or more important as that of rank-and-file faculty.

University leadership can demonstrate its commitment to the partnership by linking participation to tenure or promotion guarantees.

PROJECT SNAPSHOT:

At the University of Massachusetts Medical School (UMMS), there is a baseline expectation that senior leaders will engage with the local community. The UMMS has incorporated into its mission statement the support of community economic growth and K-12 science education—a strong sign of commitment to Worcester. Programs have been designed to bring community members onto the UMMS campus. For instance, the medical school hosts the local science fair, which generates enthusiasm among children and parents.

*Robert Layne
Program Coordinator
Worcester Pipeline Collaborative
University of Massachusetts Medical School*

Likewise, the commitment of public-school superintendents and other key administrators at the school-district level provides important leverage. School administrators must prove their support in such ways as working around (or bending) the rules if necessary. They also must provide their participants with release time to

attend workshops and visit other schools, as well as provide access to clerical support. If school administrators resist change, sometimes an initial partnership can be established until the university or college wins them over.

The ultimate expression of organizational commitment is in the commitment of resources—not only in funding, but also in such tangible provisions as office space and personnel time. The donor organization must provide at least three to five years of significant resources to allow a partnership to establish itself. School districts must also be willing to commit resources to the enterprise to ensure long-term sustainability.

PROJECT SNAPSHOT:

One of the most powerful ingredients for our past and future success was and will be the importance of parent, community, and corporate involvement. The most fortuitous component was a corporate officer/community activist who had a vision to bridge two schools across state lines, creating a program greater than the sum of its parts. Then he put the money behind us to back up this vision on a continuous and dedicated basis.

*Patricia A. Thomas, M.D.
Associate Dean for Cultural Diversity and Enhancement
Chair, Pathology and Laboratory Medicine
University of Kansas Medical Center*

In general, leaders are most effective when they build political bases around partnerships that are capable of generating protest if the program is threatened. Such support can develop only if the partnership is perceived as central and indispensable to member interests—a key element of institutionalization.

Both of these factors—the perception of the partnership as central to institutional interests and a high level of university and school commitment—must be present in a successful partnership. Without them, programmatic interventions to improve minority achievement shouldn't be attempted.

The donor organization must provide at least three to five years of significant resources to allow a partnership to establish itself.

To succeed, there must be the perception the partnership is central to institutional interests and both the university and school have a high level of commitment.



SPECIFIC STRATEGIES
FOR INCREASING
MINORITY ACHIEVEMENT

SPECIFIC STRATEGIES FOR INCREASING MINORITY ACHIEVEMENT

The literature reveals numerous successful strategies for increasing minority academic achievement and participation in the health professions.

How do minority students' career aspirations differ from their non-minority counterparts? In short, they don't.

Among college-bound high school students, there are few differences in intended majors across ethnic groups. Students show little or no difference by race or ethnicity in their math, science, and engineering interests. Some studies even show minority interest in health careers exceeding that of whites.

Armed with this knowledge, and the fact that deficiencies in educational opportunities for minorities persist, it's clear that efforts to increase minority representation in health careers should be directed primarily at academic enhancement—providing academic support to students, improving curriculum offerings, and improving teacher skills—rather than at career awareness and motivation.

The literature indicates that persistent academic failure starts in late elementary school and middle school. This means that to improve outcomes for large groups of students, interventions in general skills and interests, as well as comprehensive educational remediation, need to begin earlier than high school (that is, before 9th grade). Efforts that begin at the high school level are likely already to be too late to reach many youngsters; the efforts assist only those students who have not yet been lost to higher education. For effective interventions, health-professions schools must commit themselves to reaching back down through the

It is clear that efforts to increase minority representation in health careers should be directed primarily at academic enhancement for students rather than at career awareness and motivation.

Interventions and remediation should be in place by middle school and, ideally, begin around 5th grade.

PROJECT SNAPSHOT:

Many economically disadvantaged students close their doors to college in middle school. It's important to target students then, while they're still in middle school, to raise questions about possibilities for the future, and to instill in them that self-determination is a powerful tool. They also need to know that if they are lagging behind in reading or math, something can be done about it right now. But if they wait until they get older, the reading and math gaps are more difficult to close.

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pipeline to middle school students and, ideally, to elementary school students.

A larger philosophical question facing any partnership or intervention program is how to measure success. Is it by the increased number of health professionals flowing from the partner institutions? Is it by increased academic and professional achievement of any kind? Or is it both?

It's obvious why programs connect health-career awareness with academic improvement strategies: Program directors need to demonstrate to funders that they are specifically targeting health-careers information rather than trying to reform an entire school system. But problems arise when career awareness is the only focus or the main emphasis of a program, without simultaneously providing adequate academic preparation. But career awareness and motivation interventions are the easiest to conduct; academic gains are much harder and take longer to achieve.

OVERARCHING LEARNING PRINCIPLES

What kinds of academic support do K-12 students need? National Research Council reports in 1999 and 2000 present the research and theory on learning in the context of classroom practice. These principles, outlined below, apply to all types of learning—teacher preparation programs, K-12 curricula, or learning experiences designed specifically to improve minority achievement in the sciences and health professions.

Conceptual Learning: Lasting learning begins when teachers bring out students' preconceptions or existing understanding, then build bridges from there to new concepts. Otherwise, students may fail to learn or may learn only for the purpose of passing specific tests rather than generalizing or transferring knowledge to new domains. Students need a strong conceptual framework that allows them to organize knowledge to be retrieved and applied to new problems. Helping them through guided discovery and inculcating a culture of inquiry can support this.

Conceptual learning should be deepened with numerous factual examples and enhanced by students' self-monitoring their understanding and progress in problem solving—a "metacognitive" approach to learning goals.

Learner-Centered Teaching: Particularly for minority students, cultural differences affect the background knowledge brought to a learning task; these also influence student comfort with collaborative or individual learning. For this reason, an approach based in a student's cultural norms makes inquiry comfortable and exciting.

Teachers should take cultural factors into account when fostering intellectual teamwork. Learning should be linked with other areas of students' lives through parent involvement and support of the learning process and principles. Likewise, teacher development ought to be learner-centered, knowledge-centered, assessment-centered,

Students need a strong conceptual framework that allows for *guided discovery*.

Learning should be linked with other areas of students' lives through parent involvement and support of the learning process.

and community-centered, yet it tends not to be. Teachers need sustained support in the form of in-depth development opportunities, curriculum materials, collaboration with researchers, time, and incentives to reflect on practice and support from administrators and parents.

PROJECT SNAPSHOT:

It's important to be sure that students can enter the pipeline at any point. Each student has a dream. It's our job to help them get there, we can't close the door, because you never know when inspiration will hit. You have to design programs so that they can jump on the train at any time.

*Lisa Tedesco, Ph.D.
Vice President and Secretary
Principle Investigator, Project HOPE
University of Michigan*

PROGRAM STRATEGIES TO INCREASE MINORITY REPRESENTATION IN HEALTH CAREERS

The learning principles outlined here can be implemented through a variety of program strategies for increasing minority representation in health careers. The following strategies aimed at pre-college students can be part of independent programs that health-professions schools offer to individual students, part of partnerships, or part of more general school reforms:

- **Early intervention:** Begin educational enrichment activities at the K-12 level, preferably around 5th grade; college-level programs can't replace a high-quality course of study in the K-12 years.

Teacher development should be learner-centered, knowledge-centered, assessment-centered, and community-centered.

- **Academic enhancement:** Use remediation or enrichment to strengthen students' academic skills, particularly in math, science, communications, study skills, and test-taking skills.
- **Science and/or math instruction enrichment:** Institute a variety of systemic changes, from improving teacher knowledge or pedagogy to curricular reform.
- **Career awareness and motivation:** Provide information about health careers and encourage interest.
- **Mentoring:** Foster long-term relationships between pre-college students and older students or professionals in health-care fields.
- **Research apprenticeship:** Arrange for students to be placed in laboratories in situations targeted to developing research knowledge (generally this is for less time than mentorships).
- **Reward incentives:** Provide scholarships or college admission "plus" factors for successful program participation or other achievements.
- **Parent involvement:** Develop parent-education programs about college and health career requirements.

PROJECT SNAPSHOT:

It was easy to market the intentions of our collaborative; it's a win-win situation. The core program activities include mentoring, job shadowing, clinical and research internships, touring and laboratory opportunities, after-school science programs at the middle school and high school level, visiting scientist programs, mathematics tutoring, and a speakers bureau.

*Robert Layne
Program Coordinator
Worcester Pipeline Collaborative
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Best Practices

BEST PRACTICES

BEST PRACTICES IN GENERAL

Successful partnerships are consistently multi-dimensional, employing strategies that help students strengthen their academic skills, abilities to function in a campus environment, self-esteem, sense of purpose, and cultural awareness. Common threads in programs aiming to improve math and science achievement include:

- parental support and involvement
- earlier intervention
- high expectations of students
- hands-on learning and innovative teaching
- addressing the entire education pipeline rather than just a segment of it
- strong project leadership
- clear assessment and evaluation measures
- year-round enrichment
- career exposure
- long-term financial and community support

BEST PRACTICES FROM THE CURRENT LITERATURE

Although all of the general best practices just cited also clearly apply to health-professions partnerships, the following are the best practices that emerged from the current literature.

Early Intervention: Interventions must begin early; college, even high school, is probably too late. Motivational programs that do not address academics at an early enough age cannot improve the academic competitiveness of disadvantaged students, yet disproportionately few interventions target students by middle school or even earlier. But middle school programs can and do work.

Interventions must begin early. Motivational programs that do not address academics at an early enough age cannot improve the academic competitiveness of disadvantaged students.

Intense and Sustained Intervention: A one-time intervention is unlikely to improve “hard” academic measures. School reform—interventions that change the core functioning of schools and communities—is needed. Programs that last for a number of years are expensive, and they may raise concerns about the practicality of a program that requires such a high level of financial and human commitment. But stand-alone classes or short programs have limited or short-lived effects, whereas longer, intensive programs are more effective in K-12 settings.

A Broader Brush: Programs that are poorly funded and short-lived cannot bring significantly greater numbers of minorities into the health professions. Partnerships between health-professions schools and local school districts need to work on improving the overall quality of education for disadvantaged students beyond focusing on just the health professions.

Addressing Non-Academic Barriers to Achievement: Interventions also need to confront social issues that prevent academically capable students from progressing. Any program that seeks to create change in minority populations should show awareness of the community socio-cultural context within which learning occurs. Community involvement is one way to achieve this. Parents or other minority community members often are asked to become involved in programs to provide information about college or health careers. But their input is also valuable when programs that address minority children and families’ needs are designed and implemented.

Choosing Partners Carefully: Appropriate partner institutions—both public schools and higher-education institutions—should be selected carefully on the basis of the qualities they can bring to the collaboration. Colleges with premedical or health-science programs that serve minority students well are good candidates for partnerships with minority high schools.

Longer, intensive programs are effective in most K-12 settings.

Any program that seeks to create change in minority populations should show awareness of the community socio-cultural context.

Colleges with premedical or health-science programs that serve minority students well are good candidates for partnerships with minority high schools.

Other distinctive characteristics of colleges and universities that have been exceptionally successful in sending underrepresented minorities on to doctoral-level study in the fields of science and engineering include:

- having the total commitment of the trustee board and the central-administration team to a minority initiative in science and engineering
- recruiting faculty members who receive a great deal of satisfaction from preparing young minority people for doctoral study
- using alumni or community contacts to help in recruiting students
- creating pre-college bridging programs
- developing campus bridging programs aimed at turning B students into A students
- involving students in undergraduate research
- applying for funding from programs that support minority initiatives
- mentoring students
- receiving support and encouragement from campus chapters of national science and engineering minority organizations
- supporting student attendance at conferences
- using alumni role models
- preparing students to get high scores on post-graduate entrance examinations
- pursuing assistantships and fellowships for doctoral study for graduates
- giving annual report cards on progress and achievements of the minority initiative

- participating with other institutions, corporations, and churches in efforts to broaden the pool of minority children and youth headed to science and engineering careers

Seeking Community Involvement. Another indicator of how committed health-professions schools are to minority health issues is how administrators and faculty respond to the educational and health-care needs of minority communities that they serve. Examples would be creating a community advisory board and supporting mentoring programs and professional student-staffed community clinics. These kinds of initiatives—or lack of them—may serve as a guide for judging applicants’ suitability for partnership grants.

Planning Realistically for Pitfalls. Regardless of how ambitious a school’s programs are, they are unlikely to be powerful enough to overcome all of the circumstances that put children at educational risk in the first place. And the costs of addressing these root problems are so great, partnerships must attempt to pool their resources, whatever the difficulties. Institutions entering into partnerships must recognize that developmental and organizational pitfalls are guaranteed to arise, must face them openly and honestly, and must have realistic plans to address them.

Program funders and planners should acknowledge potential difficulties during program design and implementation rather than simply issuing a clear prescription. Funders also should expect partner-applicants to have addressed potential problems or be prepared to help them to do so.

Technical Assistance. Concrete and sophisticated technical assistance in partnership development should be available to all grantees. Similarly, information about the structure, governance, and culture of public schools should be made available to health-professions school faculty considering partnership programs.

Partnerships must pool their resources.

Program funders and planners should acknowledge potential difficulties during program design and implementation rather than issuing a clear prescription.

Evaluation. Rigorous evaluation must be a high priority for funders. A portion of their contribution should be earmarked to spend on evaluating programs for effectiveness—exploring not only specific strategies and activities, but also the overall partnership process. Determining and demonstrating what works is the only way to attract more resources to the problem. Evaluation processes are especially important to partnerships where control is decentralized among many actors.

Evaluation should be an integral part of program design rather than something that comes later. Evaluations that do not show immediate gains should lead to program modifications, not to withdrawing funding.

The larger partnership enterprise can be further advanced through periodic meetings of educators and researchers to review and disseminate research findings, supporting projects with clear numerical targets, and creating a database of lessons learned. Creating a uniform set of data requirements across programs is useful for comparison purposes.

In addition to these broader evaluation recommendations, partnerships can take specific steps toward becoming more effective:

- Determine that partners are committed to evaluation from the outset.
- Employ third-party consultants from time to time to provide needed perspective and objectivity.
- Build evaluation measures alongside program design and implementation, rather than after the fact, and keep it separate from regular monitoring done by project staff—including keeping it separate from the funding process.

Evaluation should be an *integral part of program design*, not something that comes later.

Lack of immediate gains should lead to *program modifications*, not to withdrawing funding.

- Attach partnership goals directly to evaluation. The evaluation design should contain specific questions, standards, data elements and sources, responsibilities for collecting data, specifications for how the evaluation will be implemented and monitored, analysis procedures, costs and resources required, and plans for how the findings will be disseminated and applied.
- Evaluate, too, the effects on the broader school community. Projects involving public schools bring a range of benefits to children and their families in terms of economic development and public health, regardless of whether the children decide to pursue health careers. Community members frequently seek health-related jobs as a direct result of working in grant-supported projects, as well as building skills and pursuing further advancement in health careers. These spin-off impacts deserve to be documented.

But keep in mind that the education pipeline is leaky, and many intervening variables occur. This makes it difficult to determine the effects of specific partnership interventions or to measure their effects with a strictly quantitative approach. An effective approach is to use a program logic model, which involves specifying the logic of each action and its expected outcomes, and provides a way to create measurements at each step of the process. The result: a project has a higher likelihood of achieving its goals and objectives. A well-developed logic model, for instance, might posit an intervention in middle school, predict an outcome for the end of middle school, posit a continuing intervention into high school, and look for a specific outcome from that point. (Conversely, a poorly developed logic model would posit an intervention in middle school and look for an outcome in professional education.)

Logic-model evaluation focuses on accomplishing the specific activities expected to affect the ultimate outcome that the partnership is most interested in. Stakeholders become involved in developing the

Spin-off effects deserve to be documented, too.

Specifying the logic of each action and its expected outcomes provides a way to identify program measurements.

program, building a consensus on the logic of the program—what it should do and how it should be implemented—thereby creating a sense of ownership. Successes and lessons learned are documented in a systematic way that can be shared with stakeholders and similar programs.

Some experts advocate a more formal theoretical model that examines the partners' various stakes, power, interest, interdependence, and readiness for trust. Assessing the partners relative to each other in these dimensions can give clues to possible outcomes, such as competition, collaboration, compromise,

SEVEN REASONS PROGRAMS FAIL

In a 1992 issue of *Science*, Calvin G. Sims, then a reporter at the *New York Times*, documented seven reasons that programs fail in the goal of increasing the proportion of minorities in science and engineering. Although his points pertain to a much larger enterprise with a somewhat different focus than this discussion of health-professions partnerships, they also resonate throughout these programs.

Among reasons programs fail:

- Programs were run with little oversight or assessment; funding did not depend on results.
- There was little real commitment from top administrators or from most faculty.
- Programs had vague or unrealistic goals.
- Funding was inconsistent, magically appearing one year, vanishing the next.
- Programs ignored subtle psychological issues, such as low expectations on the part of teachers and counselors.
- Colleges recruited unprepared minorities, then left them to sink or swim.
- Programs targeted only college-age students or older, instead of also going to the root of the problem with elementary, middle, and high school-age students.

accommodation, or withdrawal. Using a formal theory also highlights partners' various interests, resources, and problems, and it helps to arrive at an objective analysis of the partner relationship rather than one that blames a particular party for a partnership's difficulties.

This is not to say that personalities and individual styles do not have an effect—they do—but looking at the total context can reveal a great deal about the prospects of potential partnerships or the interaction patterns in those that are already formed.

FINALLY...

This guide suggests many ways partnerships can be formed and many types of educational changes that are needed to improve academic performance of disadvantaged and underrepresented students. A tremendous amount of money has been poured into programs seeking to increase the representation of minorities in health care, but comparatively little research and solid documentation of programs have been reported.

Because of this, any partnership program undertaken or underway now deserves—even demands—adequate evaluation of both short-term changes in academic performance and attitudes of children and of long-term outcomes, such as entry into health careers.

These findings, shared broadly, will serve to strengthen all such initiatives across the country, now and far into the future.

The full academic literature review that is the basis of this document can be found at www.aamc.org/partnershiplitreview/

Any partnership program deserves—even demands—adequate evaluation.



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The full formal literature review that is the basis of this document can be found at <http://www.aamc.org/partnershiplitreview/>

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