The MCH Training Program requires a discussion of some of the economics of higher education.

“Without MCH [Training Program] funding, there would be few if any adolescent medicine fellowship programs in the country. The private academic institutions will not pay for it, and the public institutions are increasingly in difficulty.”
— Faculty member, LEAH

The Role of Tuition in Academic Decision-Making

Many people may believe that tuition is an important factor in the courses and programs that universities offer; this argument assumes an economic model of supply and demand in which universities offer courses that students want to take. If this were the case, universities might fully support the academic programs that are now funded by the MCH training grants, and the grants could be phased out. For example, student demand for pediatric content might be reflected in matriculation decisions—students would attend only a university that met their requirements for such content—or students might oversubscribe to courses on pediatric topics.

Although the potential for increasing university income through tuition payments may occasionally affect academic decision-making, it appears not to be much of a factor in the projects supported by the MCH Training Program grants. There are several reasons for this:

• Strong student demand, leading to a large influx of trainees willing to pay tuition, is
unlikely in MCH programs: The level of demand for MCH programs that could lead to large numbers of new students does not exist. Such demand is typically related to an expectation that a course of study will lead to an increase in salary. However, MCH training generally does not have such an effect. The provost of one university explains this as follows:

"Usually, student, or trainee, demand is created by a credential that has income associated with it; for example, a student might seek to obtain a credential that would help him or her to get a better paying job afterwards. But that's not necessarily the case in the training of persons to work with children with special needs. There may be a desire, or altruism, and there may be need, but there is no financial driver. At [university], the physician associate program has been converted to a master's degree program and the university has increased the tuition; the market will bear it because when the students graduate they will get good salaries. But in training for children with special needs— that's not true. People are obtaining skills for which they'll probably make less money."

Likewise, the director of an occupational therapy project supported by the MCH Training Program commented that without the tuition support available through the grant there would be little incentive for practicing occupational therapists to return to school for additional training because they are already earning good salaries, and the increased training will not greatly affect their income potential in the future.

In short, a market in the traditional sense for MCH training does not exist.

- In many universities, tuition payments are unrelated and irrelevant to decision-making. Tuition may be low relative to other sources of income. For example, at Baylor College of Medicine, tuition accounts for only 3 percent of the budget. At state schools, such as the University of Alabama at Birmingham, tuition also may account for a relatively small percentage of the total budget, with state funding providing a much larger part of the university's income. If tuition is a minor source of income to a university, tuition payments will not have much effect on decision-making.

In some universities or departments, tuition does constitute an important part of the budget, but the decision-making structure for development of courses or programs is totally divorced from considerations related to tuition income. For example, at the University of Washington, all tuition payments are forwarded to the state treasury. Subsequently, the state legislature develops a budget that it provides to the university, and the university funds its departments based on a variety of criteria. The amount of money a particular department secures in this budget process is largely unrelated to the amount of money its students pay in tuition.

- In some programs, trainees do not pay tuition. Much postgraduate training, such as fellowship training for physicians, costs the university. The university does not receive tuition; rather, it must obtain money to support the trainee.

In sum, universities rarely include student demand, as reflected in anticipated increases in tuition payments, in their decision-making about courses and programs of study that will be offered, at least as it relates to MCH-type academic programs. So, even though most MCH training projects are able
to recruit more students than they can train, student interest does not necessarily translate into the institutionalization of MCH courses and programs of study in the absence of MCH Training Program support.

The Role of Other Funding Sources in Academic Decision-Making

Although tuition payments rarely drive academic decision-making, other revenue considerations are quite important. Accreditation is necessary to most programs if they are to recruit both faculty and students, and accreditation requirements are often the primary factor in curriculum decisions. Such requirements become the floor, or the minimum curriculum, and other factors, including in particular other sources of funding, may be used to build on the basic curriculum. For example, the University of Washington School of Public Health, located in Seattle where there are numerous local biotechnology and pharmaceutical firms, is facing strong pressure to orient the school to the conduct of clinical trials; the industry is helping to support such training, and students view the training as leading to lucrative employment.

“We live or die by grants. We’re always applying or renewing, and we’re never sure what the money will allow us to do.”
— Project director, Behavioral Pediatrics

Faculty at many universities are under intense pressure to generate revenue. There are several ways that they may produce revenue: through clinical work, contracts for consultation and technical assistance, and grants, especially research grants. Universities in particular desire the high indirect costs they gain from research grants. Research also brings prestige. Some universities emphasize research to such a degree that anything else is essentially outside the core mission of the university and is neither valued nor encouraged; this may even include teaching. The research-funding organizations have great power to direct the interests of faculty and, through the types of grants they offer, the content of training. (Graduate students are often recruited to assist in research projects, and faculty may focus their teaching around research activities.) Thus, research grants can sometimes have a large effect on an educational program.

“Immunization and infant mortality aren’t glamorous. MCH faculty are competing against epidemiology faculty who bring in sexy research grants.”
— Current student, School of Public Health

Many universities state that service to the community and profession are important components of their mission. Thus, in theory, some of the activities that the MCH training grants require, such as technical assistance and continuing education, fit squarely within the university mission. Sometimes such activities can gen-
enerate income. In reality, in many academic settings these activities are tolerated at best; research is the main criterion for tenure decisions and promotions. Given the highly competitive nature of research grants, most faculty who are successful in research endeavors have little time left for community work, and the financial, organizational, and professional rewards for such work may be relatively limited; in particular, technical assistance or continuing education will rarely bring the university as much revenue as a research grant. In short, given the time involved for service activities and the relative benefits as compared with research, the disincentives for such activities within many academic settings tend to outweigh the incentives. MCH training grants appear to be unique in fostering relationships between academia and communities through encouragement of and financial support for technical assistance, consultation, and continuing education. A consistent message from the project directors who were interviewed as a part of the site visits was that no other funding exists for the activities supported through the MCH training grants.

“Without the MCH [Training Program] funding, the PPC would become an NIH research center because that is where funding is available.”
— Project director, Pediatric Pulmonary Center

THE IMPACT OF REIMBURSEMENT ON CLINICAL TRAINING

Clinical training is funded largely through reimbursements for clinical care from insurance providers or government programs. Reimbursement has a tremendous effect on the type and quality of clinical training. Essentially all respondents concluded that existing clinical training programs would be profoundly affected, and many would cease to exist, if MCH Training Program support was discontinued. Clinical training in general is believed by many persons to be in a state of crisis. According to many observers, cost-cutting, including changes in reimbursement rates implemented by managed care organizations and the Centers for Medicare and Medicaid Services (formerly the Health Care Financing Administration [HCFA]), has degraded the quality of much of the training in clinical care. Thus, some of the economic problems of MCH Training Program grantees are not necessarily unique, but many of the cost-cutting measures appear to have an especially powerful and detrimental effect on these programs. There are three major reimbursement issues that affect these grantees: (1) the requirement for faculty to generate income; (2) the expense of high-quality training, such as interdisciplinary training; and (3) the low remuneration rates for certain fields.

- The requirement for faculty to generate income: Faculty in many clinical programs must generate a sizeable proportion of their salaries through clinical reimbursements. In theory, they can and should combine the treatment of patients with the teaching of trainees; in reality, they must limit the time they can spend in teaching in order to generate sufficient clinical income.

“[T]here is] more pressure now to generate clinical revenue so that may reduce time spent training in order to see more patients. Trainees in settings where faculty do not have time to do clinical teaching may not receive optimal training.”
— Project director, LEAH
The training of clinicians requires tremendous time; trainees do not simply accompany and observe the clinician. Explanations and one-on-one teaching are essential to quality clinical training. HCFA regulations promulgated in 1999 require that physician faculty fully oversee all trainee clinical activities, including writing chart notes for them; thus, trainees place a large burden on practitioners. Even in fellowship programs, this is an issue. Although fellows are fully qualified physicians, they may not charge for their services and must be totally supervised. Designed to prevent improper care of patients, these regulations have the effect of greatly increasing the time required of supervising clinicians, decreasing the practice time of trainees, and reducing clinical revenue at teaching hospitals.

Department chairs are held accountable for generating external sources of revenue to cover all activities within the department. Cost-shifting between research, teaching, and clinical revenue streams has become increasingly difficult. Grant funds to support teaching are largely unavailable and state money to support teaching is quite limited. In this environment, MCH [Training Program] grant dollars play a pivotal role, enabling faculty to teach in a way that ensures adequate time for student learning. 

—Project director, Pediatric Pulmonary Center

• The expense of high-quality training, such as interdisciplinary training: The MCH Training Program model of interdisciplinary clinical training is expensive. In some projects, teams of health care providers from a variety of disciplines meet, sometimes more than once and for extended periods of time, to review a case and develop treatment recommendations. Such training leads trainees to a better understanding of the whole child and of the contribution that various disciplines can make in treatment, and it provides excellent care to children (especially those with very complicated problems), but it is an extremely time-consuming model with little or no possibility for reimbursement even remotely approaching the cost of the service. Adding to the financial pressure, some of the disciplines that participate in these assessments and clinical services do not receive reimbursement for their services, either from insurance providers or the government. Several respondents noted, for example, that social work and nutrition services are not reimbursable, and that in a tertiary care center, neither are nurse practitioner services. Without the MCH Training Program grant, the training projects would be unable to support non-physician faculty because the clinical money that these individuals can derive is so limited. Many project directors contend that without MCH Training Program funding, their training programs would revert to a unidisciplinary clinical focus and the quality of the programs would suffer greatly. In the end, clinicians would not be trained as well and ultimately children would receive inferior clinical treatment.

—Project director, Pediatric Pulmonary Center

“Current reimbursement structures preclude either the type of training or the types of services being provided through LEND projects. Yet the children being served have very complex problems .... Interdisciplinary training will never be self-supporting.”

—Project director, LEND
• The low remuneration rates for certain fields: Some fields require practitioners to spend much more time with patients than others do, but these time requirements are not reflected in reimbursement structures. For example, the effective care of adolescents or of children with behavioral problems typically requires considerable time, but payers still assume a 10-minute or 15-minute visit. Similarly, insurers frequently do not understand children with special health care needs and do not allocate enough time for the provision of services to these children. Moreover, the amount of reimbursement for some of these fields lags far behind that for other specialties, even discounting treatment-time requirements.

“Here at UCSF, adolescents are capitated at $8 per month. If an adolescent walks in the door, even one time in a year, you’ve lost money. So we do not have the ability to transfer money from clinical revenue to offset training.”
—Project director, LEAH

In years past, many universities were able to distribute clinical money into all sorts of different initiatives, and they could subsidize the less remunerative programs with funds from programs that were able to command more funds. In many places, this is no longer the case, and thus certain programs are facing severe budget shortfalls. A LEAH project director commented, “Some specialties, such as neonatal care and cardiology, generate much more money than is possible in adolescent medicine. Under managed care, pooling of monies within a department from different specialties is not possible and so the ability for better-funded programs to subsidize underfunded services is eroding.” One project director noted that faculty have now begun to secure funding from outside sources and are using it to subsidize clinical care and training.

**Leveraging of MCH Training Program Grants**

In a surprisingly large number of site-visited projects, respondents reported that the MCH Training Program grant provides the core of the academic program, even when the grants are relatively modest compared with the department’s entire budget. Over and over, project administrators asserted that the MCH Training Program funding establishes the direction for a department and facilitates additional funding from other sources that require more targeted activities (e.g., focus on a particular disease). The core support that projects obtain from the MCH Training Program grant pays for key elements of a training program that academic departments often cannot fund from other sources. Support of an interdisciplinary faculty and
allowance for administrative costs, for example, provide a basic infrastructure. Once departments have the core in place, it is easier for them to secure additional funds, including research grants and community contracts. Because the MCH training grant is the centerpiece of the academic program, it defines the program’s content and mission.

“We’ve tested the waters looking for funding for training. We can’t raise charitable money to support training. We cannot figure out how it can be self-sustaining.”
— Project director, LEND

Many universities provide in-kind support to MCH training projects. Project directors in several universities stated that the MCH training grant initiated a new program that was first supported by additional funds from the university; subsequently, it became possible to obtain more funds from external sources.

“Following receipt of the MCH [Training Program] grant, we were able to leverage university dollars to support the development of the department. Once we received the MCH training money, we were also able to successfully compete for CDC and NIH funding.”
— Project director, School of Public Health

Grantees frequently identify in-kind funds in their applications, but it is often difficult to discern the extent to which university support that is termed “in-kind” is truly new money. In other cases, a clear pattern exists that shows a university has added its own funds to the grant resources, thereby directly leveraging federal dollars. It is also possible to think of leveraging in another way—namely, keeping a program alive. Although this is not the same as adding funds, it can be thought of as preventing funds from being lost. For example, the project director of the behavioral pediatrics program at the University of Maryland stated that the MCH train-
An evaluation grant affords legitimacy within the university and brings prestige to the department. Other programs within the department that have no federal funding face either serious cutbacks or outright cancellation, but the MCH training grant protects the behavioral pediatrics program from such a fate.

"The program began with 100 percent of its funding from the LEND grant. We have secured funds from many different sources and now the program is a $100 million per year enterprise, although the LEND grant remains the only source of interdisciplinary training funds."
—Project director, LEND

It is important to note that MCH training grants have extremely low indirect rates—only 8 percent. Because of this low rate, universities are in fact subsidizing the MCH Training Program. The real costs to universities of providing administrative and other services is considerably higher than the indirect rate the universities receive.

"Beyond leveraging of funds, the LEND grant has served to establish criteria for the type of work we pursue. If we are approached by someone who asks us to work on a project that doesn't fit these criteria, we don't take it. The entire portfolio is driven by the LEND mission."
—Project director, LEND

**Summary**

Without direct MCH Training Program funding, most universities have no particular incentive to support MCH training. Other, more lucrative sources of revenue, directed to other topics, help determine educational programs. Universities also tend to neither encourage nor support some of the activities that the MCH Training Program grants fund, such as technical assistance and continuing education. Reimbursement issues in clinical training have added additional pressure on faculty in clinical programs, including reducing the time available for teaching. The MCH Training Program grants address all these issues. Moreover, no other source is available to fund the activities required of grantees through the MCH Training Program. The MCH Training Program operationalizes the view that the training of health professionals is a public good, and that there is a legitimate governmental role in sustaining it.

Many projects are able to leverage their grants in ways that greatly increase their influence. However, the leveraging aspect of the grants greatly compli-
The MCH Training Program had a tremendous impact in the field—in changing training practices within their universities, in affecting the careers of their graduates, in contributing new knowledge to the field, and in successfully advocating for systems changes. But these outcomes are frequently only indirectly linked to the funds expended by the projects, although project administrators claim that such outcomes could not occur without the grants. In short, attempting to evaluate these grants by linking what they directly fund to particular outcomes would appear to seriously underestimate the value and contributions of Training Program grants to maternal and child health.

Cates an analysis of the impact of the program. For example, project directors state that the MCH Training Program grant enables them to hire interdisciplinary faculty, and yet some of these faculty soon come to largely support themselves (e.g., through clinical reimbursements or other grants). In an evaluation, how should one count or otherwise assess the productivity and contributions of such faculty as it relates to the MCH Training Program if the faculty attribute their presence in the department to the MCH Training Program grant but yet are only minimally supported by it? How can the importance of infrastructure support be clearly identified? Grantees believe that they have...