Nike-Footed Health Workers Deal with the Problems of Adolescent Pregnancy

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Ms. Perino's proposal won second prize in the contest for the 1991 Secretary's Award for Innovations in Health Promotion and Disease Prevention. The contest is sponsored by the Department of Health and Human Services and administered by the Health Resources and Services Administration in cooperation with the Federation of Associations of Schools of the Health Professions. Ms. Perino's paper was submitted by Columbia University School of Public Health while she was a student there. She is now the Health Educator at the Union Health Center of the International Ladies Garment Workers Union in New York City.

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Synopsis

Working principally to prevent repeat teen pregnancy, improve birth outcomes to teen mothers, and build adolescent parenting skills, the Nike (sneaker)-Footed Health Worker Project (NFHW) draws trainees from the target population of parenting adolescents. The young mothers will participate in an education project that, after 1 year, will return them to serve the same population from which they were drawn.

The Nike-Footed Health Worker Project is designed to allow adolescent mothers to complete high school while they are simultaneously trained in the principles of basic pre- and postnatal care, child development, nutrition, and counseling. After fully understanding and signing a contract detailing the expectations and requirements of the course, trainees will begin the project and receive a base salary in the form of a student loan. Eligible for merit wage increases, they are obligated to use their salaries to make pre-set contributions to the project for housing, food, and child care expenses.

After graduating from the 12-month residential project, the NFHWs will be prepared to serve their community. Working out of local clinics and hospitals, they will bring basic care to the homes of pregnant teenagers. Acting as the advocates and counselors of adolescents, the NFHWs will help to prepare the expectant mothers for the arrival of their infant. Following the child's birth, the NFHWs will continue to work with the mother and her primary health care providers as the new mother learns the art of parenting. The NFHW will also ensure that the child has received the appropriate well-baby care (immunizations and so forth) and that the mother has received needed postnatal care and counseling about contraception.

ONE IN TEN OF OUR NATION'S adolescent girls will become pregnant before reaching her 20th birthday. Teenage mothers, unprepared for the responsibilities of parenthood, lead lives of desperation; they often remain poor, unskilled, and dependent on society for support. Researchers have cited our rapidly changing society, the unpredictable nature of adolescence, barriers to family planning services, poor educational attainment, and low self-esteem as contributing to high fertility rates among adolescents. A solution to the problem has eluded us, and teenage pregnancy remains a persistent and troubling dilemma in the United States.

Statistics indicate the severity of the problem of adolescent pregnancy. In 1988, the rate of live births per 1,000 adolescents between ages 15 and 17 stood at 33.8 and increased to 81.7 among young women ages 18 to 19 (*1*). In the same year, of all infants born to teen mothers, 65.3 percent were out-of-wedlock, the rate increasing to 93.6 percent among mothers younger than age 15 (*1a*).

The relationship between health care during pregnancy and good birth outcomes is clear; women who receive early, regular prenatal care are more likely to have higher birth weight infants. Yet in 1988, only 55.4 percent of unmarried women giving birth to a live infant received first trimester prenatal care (*2*). Studies further reveal that among pregnant 15- to 19-year-old teens and women with less than a high school education, more than half do not receive prenatal care in the first 3 months of their pregnancy (*1b*).

Low birth weight infants (less than 2,500 grams)

have higher rates of morbidity, disability, and mortality than higher birth weight infants. This relationship between prenatal care and birth weight is clear among adolescents; in 1988, 9.3 percent of infants born to mothers between ages 15 and 19 were of low birth weight. The percentage of low birth weight increases to 13.6 when mothers younger than age 15 are considered. Among mothers of all ages, the rate of low birth weight infants was 6.9 percent (*1c*).

Literature Review

There is consistent agreement in the literature that early and regular prenatal care is one of the most important determinants of good birth outcomes to teen mothers. Birth outcome, as well as pregnancy, is subject to profound influence by a host of confounding sociodemographic factors. Although there is no consensus on the best method of preventing adolescent pregnancy, there exists a general understanding that it is a problem resulting from and complicated by low socioeconomic status, low self-esteem, poor educational attainment, limited knowledge about pregnancy, and inadequate and inappropriate access to reproductive health care.

Furstenberg and coworkers conducted a longitudinal study of urban black women who became mothers as adolescents (*3*). The data collected indicated that those factors found to influence teenage pregnancy are similarly involved in multiple parity and long-term receipt of public assistance. Interviews conducted 17 years after the birth of their first child revealed that teen mothers who did not graduate from high school within 5 years of giving birth were more than twice as likely to be receiving welfare than those who completed high school in the same 5-year-period. Researchers found that women who received welfare payments in the 5 years following their child's birth were almost 60 percent more likely to be current welfare recipients than those who did not receive public assistance in the same 5 years. The survey also indicated that women who had their second or third child within 5 years of the first were almost three times as likely to be receiving welfare as those who delayed the birth of additional children.

Project Objectives

By training a group of adolescent mothers to become home visiting Nike-Footed Health Workers (NFHW) in their own community, this project seeks to

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- graduate 25 young mothers with a high school diploma and the training necessary to provide pre- and postnatal health care, teach parenting skills, and counsel pregnant and parenting adolescents;
- Assign the NFHWs to jobs within a private or government agency each with a minimum case load of 10 pregnant or parenting adolescents; and
- Receive loan repayments regularly from each NFHW.

In 3 years, and within the catchment community where the NFHWs are assigned, the project seeks to reduce adolescent pregnancy, decrease by 50 percent the rate of repeat pregnancies among teen mothers, reduce by 50 percent the incidence of low birth weight infants born to adolescent mothers, ensure that adolescent mothers graduate from high school, and improve parenting skills among adolescent mothers.

The project's health workers will wear sneakers to underscore the fact that their services are mobile and accessible and that health need not be confined within the walls of a clinic. The brand name Nike, as opposed to Reebok or any other brand of sneaker, was selected for the project because of its "Just Do It" advertising campaign. "Just Do It" in this proposal may be interpreted as an exhortation to act; if teenagers will not come to prenatal care, bring prenatal care to teenagers. Should the use of the name Nike prove to be a problem because of another brand's popularity, the name may be changed to reflect local fashions.

Financing for the project should spring from a variety of sources. Efforts to raise funds should not concentrate exclusively on one sponsor, but rather, should seek to represent those with a vested interest in the project's outcome. Likely sponsors would be those parties with both immediate and long-term stakes in the community, since they would be more likely to be committed to its success.

Government or foundation "seed" money would be used to initiate the project. It would be equally

important, however, to generate smaller contributions from a greater number of donors in the project's catchment area rather than a smaller number of large contributions from outside concerns. For example, government grants could be used to cover personnel and startup costs while private funds paid for the participants' food and medical care. Local businesses might make tax-deductible donations for educational materials in the name of the "NFHW Community Coalition" while religious and other organizations might cover part of the costs of child care.

During the campaign to raise funds, economic data will be presented to potential funders, demonstrating that it is in the best financial interest of government, business, and community to support the project. Clearly, educated and employed women are less likely to become dependent on the public's tax dollars than ill-educated, underemployed women living in poverty. In addition, healthy, well-educated mothers are a welcome addition to the workforce, and once employed, are more likely to become paying customers with their increased disposable income (*4*).

Methodology

The 12-month project would begin with a group of 25 adolescent mothers. Two teams would work 8 hours a day, 5 days a week. One-half of each day would be devoted to earning a high school diploma, and the second half would be spent in fulfilling those requirements necessary to become a Nike-Footed Health Worker.

NFHW trainees would live in a dormitory setting (group residence reduces living expenses and related costs) and attend classes either in the residential building or nearby. Day care facilities would be located on the site of the academic and training project. A group atmosphere will provide the intensity needed to complete the course of study successfully, and it will encourage participants to form those bonds with each other and with their instructors that are needed for self-esteem and motivation. A group setting will also promote support, cooperation, and team-mindedness among the trainees. Students would be encouraged to go home weekends to retain ties with family, friends, and community.

Trainees would be paid a salary in the form of a student loan. It is expected that trainees' wages will be used to contribute to room, board, health insurance, and child care costs. The salary allows trainees to function independently, acquire savings, and understand day-to-day principles of fiscal responsibility.

The ideal NFHW candidate would be an unmarried mother between ages 16 and 19 who has dropped out of high school. Participants would likely have one child, preferably age 12 months or older.

At the start of the project, and again 2 months later, all participants would be required to sign a contract detailing their responsibilities and commitment to the course. Violation of one or more of these agreements will be subject to sanctions or actions deemed appropriate by peers and instructors. Each candidate would understand, before participating, that in exchange for instruction and salary, she will be required to

- attend classes regularly,
- commit to realizing her full potential as project participant,
- fulfill project requirements,
- not become pregnant (family planning services and health care are provided on site),
- abuse no drugs or alcohol (counseling may be provided if necessary),
- contribute future wages received either in service to project sponsors or other future employers at a rate of 5 percent per year, and to repay tuition and living expenses for the training project. (Loan repayment may be deferred if a trainee opts to continue her education.)

Curriculum

The first month of the project would focus on setting goals and building self-confidence and motivation. This period would allow time for academic assessment of the students and provide time for them to understand the depth of the project and to cultivate basic study skills and responsibilities. This period also gives each trainee the opportunity to earn her first merit-based salary increase. The academic curriculum would emphasize English, mathematics, science, history, civics, and a second language. Training for the Nike-Footed Health Workers would include (*a*) life planning and goal setting; (*b*) finances; (*c*) communication, relationships, and conflict resolution; (*d*) basic anatomy, physiology, and reproduction; (*e*) child development and parenting skills; (*f*) nutrition, lactation, exercise, and first aid; and (*g*) substance abuse.

Nike-Footed Health Workers, through their education and training, will work to understand and document those forces compelling young women

such as themselves towards early pregnancy. They will then design interventions to be used to prevent adolescent pregnancy in their community.

An incentive project could be established to encourage the families and friends of the NFHWs to attend child development, parenting, and relationship projects designed and run by the trainees themselves.

NFHW's Responsibilities

Clients would be assigned to NFHWs on the basis of the client's positive pregnancy test. With the primary care giver's consent, the prenatal care that can be delivered at home is given by the NFHW. Together, clinicians and NFHWs review the patient's record and design the appropriate schedule of care. A NFHW can act as an escort if one is needed to encourage the pregnant woman to come to the clinic for prenatal care; she can serve as a friend and advocate for the client as well as a care provider. The duties of a NFHW might include the following tasks:

- addressing the client's concerns about abortion, adoption, pregnancy, and birth;
- weighing clients properly;
- providing nutritional analysis and practical counseling;
- taking blood pressure for early detection of pregnancy-induced hypertension;
- drawing blood samples, delivering prescriptions;
- provide postnatal care, exercise instruction, and lactation counseling;
- providing contraceptive counseling, distributing condoms and nonprescription birth control devices;
- gauging infant development and mother-child relationships;
- providing immunizations;
- providing information about social and legal services; and
- setting up or escorting clients to appointments.

Significance of the Project

It is not the intent of this project to supplant the valuable and important care of a physician. The aim is to expand health services to those not receiving adequate care in the existing system; the NFHWs' nontraditional approach to health care could prove to be a useful and effective means of improving birth outcomes and maternal health while also expanding immunization coverage.

NFHWs support health care providers by granting physicians and other clinicians greater flexibility in the provision of maternal-child health services. The NFHWs' frequent home visits provide a supplementary check through which care givers can carefully monitor the health of the expectant mother (these additional visits would prove particularly useful in high-risk pregnancies).

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Given the proper training, NFHWs will be able to perform the tasks necessary to draw blood safely or administer childhood immunizations. Injection skills similar to those required for vaccinations are required of type I diabetics, regardless of the person's education. The comparatively young ages of the NFHWs are not a barrier; insulin-dependent adolescents who have demonstrated their diabetes care skills routinely monitor their blood glucose levels and mix and inject their own insulin (*5*). Pregnant women of all ages who develop gestational diabetes are often required to give themselves insulin injections (*6*). Many developing nations use paramedical personnel to augment their primary care systems; immunizations are often a part of these health workers' responsibilities (*7*).

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As the name implies, the Nike-clad feet of the NFHW will deliver direct care to a difficult-to-reach population. Bringing health services to the homes of pregnant and parenting adolescents extends needed care to young mothers, provides an outlet for them to express fears, and a resource to whom they can turn for support. The project works specifically to ameliorate several major prob-

Proposed yearly budget for personnel and overhead for Nike-Footed Health Workers Program

Item and number	Unit cost	Total cost
Personnel		
2 instructors	$30,000	$60,000
1 resident advisor	8,000	8,000
1 support staff	20,000	20,000
25 trainees	[1] 9–12,000	225–300,000
3 day care	25,000	75,000
Overhead		
1 building		donated
Maintenance (yearly)		10,000
Utilities, supplies (yearly)		15,000
Total		$488,000

[1] Minimum and maximum salary.

lems of adolescent pregnancy and motherhood: inadequate prenatal care, poor nutrition, weak parenting skills, and repeat pregnancies.

The insight into adolescent pregnancy that trainees will develop and use to design pregnancy prevention projects will be a valuable contribution to the community. Using trainees to teach what they learn to their friends and families facilitates learning and encourages interest and motivation.

Evaluation Methods

An array of evaluation techniques could be used to assess the project's process, impact, and outcome. Suggested analytic strategies might include collecting data on the number of trainees completing the project; grade point averages of the trainees; their skills progression (pre- and posttesting skills); and the number of adolescent pregnancies, repeat births, and low birth weight infants born in the NFHW catchment area. Other strategies would be to collect student's anonymous evaluations and to conduct focus groups among family members.

First Year Budget Justification

The total cost of the project for the first year is estimated at $488,000. Expenses for personnel and overhead are listed in the table.

The salaries of the project's instructors would be commensurate with those paid to well-qualified professionals. Wages earned by the NFHWs must equally reflect the respect that the project's sponsors accord the trainees. In the years following its initiation, the project will be receiving income in the form of loan repayment, thus allowing a degree of financial flexibility.

NFHWs will be expected to use their salaries to pay for their room, board, and day care expenses. The trainee's yearly expenses would be approximately $3,000 for rent and utilities, $2,400 for food, and $3,000 for child care.

Salaries and raises would be based on merit measured through attendance, grade point average, class participation, initiative, and progress in the project (the young women would take part in establishing the criteria used). Deductions are not intended to be punitive; thus wages would begin at a minimum of $7.50 per hour, allowing the trainees to live comfortably. After the first months of the project's implementation, the trainee's progress would be assessed every 2 weeks.

The minimum annual salary that NFHW could earn working 5 hours per day (trainees are not paid for working toward their high school diploma) would be $9,000, and the maximum $12,000 (hourly rate of $10). Therefore the potential discretionary income of a trainee could range from $600 to $3,600 per year.

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