This document outlines the development, evaluation, and replication of the Carrera model for pregnancy prevention. The Carrera model helps teens avoid pregnancy by empowering them to develop and reach personal goals, and by providing them with information on sexual issues, including abstinence, contraception, and the consequences of sexual activity. The model also helps participants discover individual interests and talents, and emphasizes the life opportunities made possible through education and employment. A list of related teen pregnancy prevention resources is also included. (GCP)
The Carerra Model: A Success in Pregnancy Prevention

By

Duane M. Elling
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EDITOR'S NOTE: The Charles Stewart Mott Foundation has provided almost $24 million for the field of teen pregnancy prevention since 1970, including $5.8 million to date to the Children's Aid Society (CAS) for the development, evaluation and replication of the Carrera model. Mott will continue to monitor activities as it helps develop the infrastructure necessary to sustain the field of teen pregnancy prevention into the future, but does not anticipate accepting unsolicited proposals.

At a time when not knowing the facts about sexual issues can have dire consequences, several communities — including many low-income, underserved neighborhoods — are actively engaging adolescents in frank conversations about relationships, pregnancy and sexually transmitted diseases. And they are finding that many teens and pre-teens, while perhaps curious about sex and their developing bodies, are also interested in maintaining their health and exploring life options.

"You always have to protect yourself when you're going to have a [sexual] relationship," said Anthony, a 12-year-old student at Mirabal Sisters School at Intermediate School 90, a CAS community school in New York City's Washington Heights district. "You have to use condoms."

"Yes, because if you don't, you could get HIV and you could die," agreed his classmate, Ernesto, 12. "And you don't want to die at a young age."

For Lydia, an 11-year-old student at Mirabal, making informed decisions about her future, including possibly postponing sexual activity, likely will be strengthened by an emerging appreciation of her value as an individual.

"I used to think that I was a mean person and that nobody liked me," she said. "But now I think that I'm a nice person and that I make a good friend."

Anthony, Ernesto and Lydia attribute much of their developing insight to the Confidence Club, a school-based pregnancy prevention program that, in addition to education on issues of sexuality and family life, provides Mirabal students with access to medical and dental care, individual counseling, help with homework, employment opportunities, and participation in extracurricular activities.

Club staff members say that providing such services within a caring and supportive environment is basic to the program's success.
“We have really shown a lot of love for these kids and this has given them a lot of confidence in themselves and trust in us,” said Ruben Padilla, program coordinator.

“I think this is starting to show in their performance and their self-esteem. They feel that they have a bright future.”

The club is one of more than 50 programs operating across the country — including several in the greater New York City area — that are based on the Carrera model of adolescent pregnancy prevention.

The model, launched in New York in 1984 by Dr. Michael Carrera at the CAS Milbank Center and funded in part over the years by the Mott, Robin Hood, and Milton Stern Family foundations, helps teens avoid pregnancy by empowering them to develop and reach personal goals, and by providing them with information on sexual issues, including abstinence (encouraging youth to abstain from sexual activity), contraception and the consequences of sexual activity. The model also helps participants discover individual interests and talents, and emphasizes the life opportunities made possible through education and employment.

Recent evidence of the model’s success at reducing rates of pregnancy and sexual activity among female teens and improving the educational and employment prospects of all participants has led to a four-year, $3.5-million Mott Foundation grant to CAS in New York City for partial funding of the model’s replication. (See evaluation results, page 3.)

The five-year, $10-million initiative includes the establishment of five regional training centers in large urban areas around the United States by 2005, each managing approximately seven Carrera replications. The first training center opened in October 2001 in Boynton Beach, Florida, to test the possibility of expanding the program’s reach while preserving its effectiveness. Other center locations will be identified as the initiative progresses, with additional centers planned beyond the project’s initial span.

Among the regional centers’ responsibilities will be providing local replications with ongoing training and technical assistance, an important asset for sites hundreds or even thousands of miles from CAS’ central offices, where all staff training and program management currently take place.

Finding youth-serving organizations that are ready and willing to commit to the model’s parallel family systems approach will be another challenge facing the regional centers. Carrera believes it is crucial to participants’ success that the replications embrace such a philosophy, which emphasizes the importance of staff treating children as if they were their own, instead of viewing them simply as clients needing occasional counseling or service.

“So we tell kids, ‘School is in your future. College is in your future.’ That’s the stuff of pregnancy prevention.”

— Dr. Michael Carrera

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“One of the keys to the model’s success is building a sense of trust with these kids. They will frequently forget what you say to them, they will frequently forget what you do with them, but they will never, ever forget how you make them feel. So how we make them feel is a primary objective of the engagement, and that’s a shift for some people.”

**Successes to be duplicated**

Carrera says the replication initiative will give careful consideration to the model’s capacity to meet the needs of youth in each proposed region. Potential replication sites must also exhibit an understanding that affecting youths’ attitudes and beliefs requires a long-term commitment, and demonstrate a capacity to respond proactively to national trends in the field. Such trends include simplifying and strengthening participation by offering a range of youth services like education/employment assistance, reproductive health services and personal development within a single program.

Based on the recent evaluation’s findings that the Carrera model did not have significant impact on reducing sexual activity among teen males, the replications will take steps to reach participants before they become sexually active.

“Many young men who were in some of the
When a rigorous evaluation of the Carrera model found in 2001 that female participants were almost 50 percent less likely to become pregnant than their control group counterparts, Dr. Michael Carrera, the program's founder, was far from stunned.

"It didn't really surprise me; we had been seeing that all along," he said. "Of course, it made us very happy that there were statistically significant differences in that area. The evaluation took us from probable knowledge to certain knowledge."

However, several other outcomes were surprising to him.

"Like the [finding that] young women in our programs were better able to withstand coercive sexual pressure in contrast to the control group females," Carrera said.

The three-year random assignment evaluation, conducted by Philliber Research Associates in Accord, New York, also found that female participants in the Carrera model:

- delayed sex longer;
- had fewer sexual partners; and
- were three times more likely to have used effective contraception at last intercourse.

The evaluation did not find significant effects on the sexual behaviors of teenage boys participating in the Carrera-based program. Carrera believes such results may be attributed to pre-existing patterns of sexual behavior among those youth, with many males reporting having had multiple sexual partners prior to participating in the program. He is now refining the model to reach younger age adolescents before they engage in sexual activity.

Results for both male and female participants in the Carrera-based programs also included:

- greater workforce participation than adolescents in the control group;
- greater knowledge of sexual and reproductive issues;
- more frequent use of health-care programs;
- greater knowledge and use of computers; and
- more exploratory visits to colleges and universities.

Furthermore, 70 percent of youth participating in the Carrera model were still involved in the program at the evaluation's end.

For Carrera, each of these findings shows that the model is helping adolescents recognize that sexuality is just one part of who they are, and that, at least for some, having sex can wait.

"If you're knowledgeable, if you have opportunities, [and] if you feel good about yourself, then you generate that desire to treat yourself as a first-class person," he said. "I think that's what we do in our program, and that we're more likely to see some influence of that on the kids."

The $2.4-million evaluation, funded jointly by the Mott and Robin Hood foundations, examined the sexual activities and life choices of 941 urban adolescents, ages 13 to 15, enrolled in pregnancy prevention programs at 12 community-based service organizations.

Four hundred and eighty-four youth were randomly selected to participate in a Carrera-based program, while the remaining youth engaged in their host agency's own pregnancy prevention model and served as the control group.

Philliber is expected to continue collecting data at three of the evaluation sites to assess the Carrera model's long-term impacts and outcomes. The organization also will evaluate the program's planned regional training centers and monitor the effectiveness of these replications.

Programs operated by the following organizations participated in the evaluation:

- Baden Street Settlement, Rochester, New York;*
- Boys and Girls Aid Society, Portland, Oregon;*
- Chicano Family Center, Houston;*
- Citizens Advice Bureau, Bronx, New York City;
- Healthy Teens and Young Adults, Baltimore;*
- Grand Street Settlement, New York City;
- Jacob A. Riis Neighborhood Settlement House, Queens, New York City;
- Madison Square Boys and Girls Club, Bronx, New York City;
- New York City Mission Society, Harlem, New York City;
- Partners in Action for Teen Health, Seattle;* and
- Project Reach Youth, Brooklyn.

*Indicates site whose Carrera program replication and evaluation were supported by Mott funding. The other sites were supported by the Robin Hood Foundation.
Program emphasis is on each child’s potential for success and his or her value as an individual.

programs had had multiple sexual experiences before the program started,” Carrera said. “They became the most difficult young people for us to engage in an ongoing way. We learned so much from that, that all of our new work is with 11- and 12-year-olds, so that we begin our work with them before they’ve had any sexual contact.”

Finally, to qualify for site replication, the host agency must commit to providing all of the model’s seven components:

- Job Club, a work-related intervention that provides participants with job experience, small stipends for work-related activities, and individual bank accounts;
- educational assistance, including academic assessment, tutoring, help with homework and preparation for college entrance exams;
- family life and sex education, including abstinence and safe-sex topics that focus on age-appropriate sexual literacy;
- self-expression through the arts, such as painting, drawing, theater and creative writing;
- lifetime individual sports, including exercise, bowling, golf, tennis, swimming and gymnastics;
- comprehensive dental and medical care, including access to contraceptive devices; and
- counseling/mental health services.

This integrated, holistic design takes an “above the waist” approach to pregnancy prevention, according to Carrera, and provides participants the tools to monitor successfully their own sexual activity.

“I don’t prevent teen pregnancies, they [the youth] do,” he said. “What I do is create a climate where they want to prevent pregnancy. Now, you can’t do that if you just talk about sexual facts or information, because that’s a capacity-driven

program. What I wanted to do was develop a desire-driven program, and the way you do that is by showing people that there are possibilities for them that are exciting. … But you can’t do that by simply talking about contraception.”

BUILDING STRENGTH AND SUPPORT

Incorporating such a broad range of services has resulted in a complex and, at first glance, relatively expensive model, costing almost $4,000 annually for each participant, compared with $1,500 per year for other less comprehensive programs.

However, a key difference between the Carrera model and others, notes Dr. Douglas Kirby, author of the 2001 report “Emerging Answers: Research Findings on Programs to Reduce Teen Pregnancy,” is not simply the price tag, but more importantly what those dollars actually accomplish.

“The evaluation of the Carrera program includes the only findings that show a program actually delayed initiation of sex, increased long-term use of contraceptives, and decreased pregnancy and birth rates by half for all of three years,” Kirby said. “We reviewed 73 different studies in 'Emerging Answers,' and we found no results for any other program that compare to that. That's pretty dramatic.’’

The Carrera program, which currently serves more than 2,000 adolescents annually, is also considerably less expensive than the public cost of teenage pregnancies, estimated by the National Campaign to Prevent Teen Pregnancy at more than $7 billion each year for health care and financial assistance to teen mothers and their children.

This success will be a key message as the centers seek funding for the local sites, including support from public and private foundations, as well as from the communities in which the sites operate. The replication project will assist with reaching the latter audience by helping the centers publicly explain the model and promote its participants’ achievements. It also will call upon a vital resource for help with those advocacy efforts — parents.

Since its beginning, the Carrera model has actively sought input and participation from parents, and has coordinated additional services designed to meet the needs of this audience. Included are referrals for employment and education assistance, counseling, and a family life and sex-education program designed specifically for parents and other adults in the community. Staff also conducts workshops to help parents and guardians understand their children’s needs and become active participants in their future success.

“We don’t supplant parents, we supplement them, we support them,” Carrera said.
“They look around and see the tragedies affecting young people today. Sexually transmitted infection that may never go away. School dropout, substance abuse, violence now with guns, coercive sex.

Parents see this and they don’t know what to do; they’re overwhelmed. So a program like this comes to the community and they welcome it with open arms because of its duration, its impact and how we treat them.”

This attention to the family has resulted in a growing number of supporters who have seen firsthand the difference the program makes in the lives of young people.

“[The] program has become a second home to my daughter,” said Eddie Jimenez, whose 11-year-old daughter attends the Carrera-based Children of the New Millennium program at Intermediate School 218, another CAS community school located in New York City. “She now feels she has a future.”

Interest in programs that take such a direct approach to working with youth, particularly in regards to sexual literacy, is by no means limited to families involved in the Carrera program.

A 2000 report on sex education in public schools by the Henry J. Kaiser Family Foundation found that 90 percent of parents surveyed wanted sex education courses for their children to include both abstinence and family planning/reproductive components. Perhaps even more notable, the report indicated that the majority of parents also wanted their children to learn the proper use of condoms and other methods of birth control, and to receive information on sexually transmitted diseases and sexual orientation.

For Carrera, providing adolescents with such information is integral to helping them make informed decisions about sexual activity. In responding to recent reports that teenage childbearing in the United States declined 22 percent during the 1990s, he notes that the drop was preceded by an equally dramatic increase in teen birth rates between 1986 and 1991, leaving the teen birth rate in 2000 only slightly lower than it was in 1986.

Furthermore, a 2001 report by the Alan Guttmacher Institute (also a Mott grantee) found that, despite the decline, the rate of teen pregnancies in the United States remains the highest of several Western countries, including Great Britain, France, Sweden and Canada.

Denying adolescents accurate information about sex, Carrera believes, contributes to these unplanned pregnancies and puts youth at risk of making potentially fatal mistakes.

“Many kids today know only mythology and misinformation about sex,” he said. “The purpose of the family life and sex-ed component is literacy, so that children, when they’re 13, know enough for 13-year-olds. And when they’re 15, they know enough for 15-year-olds. Sexual ignorance is not bliss; it’s dangerous.”

LEGISLATION UNDER REVIEW

Current debate over the relative merits of various pregnancy prevention programs, including abstinence and safe-sex approaches, is particularly timely, given the pending 2002 reauthorization of the 1996 Personal Responsibility and Work Opportunity Reconciliation Act.

This federal welfare reform legislation included a five-year, $250-million provision for states to develop and implement abstinence-only pregnancy prevention programs. The programs, administered under Section 510, Title V, of the Social Security Act, require matching state funds ($3 for every $4 awarded in Title V funds) and adherence to eight specific criteria, including the mandate that their “exclusive purpose” be teaching the “social, psychological and health gains” to be realized from abstinence.

At the time it was adopted, supporters of the provision stated that such programs would discourage out-of-wedlock births, which they argued were at the heart of welfare dependency in this country. To date, 45 states have reported using Title V funds for abstinence-only programs.

While it remains to be seen if such curricula have had any effect on adolescent pregnancy rates or sexual behaviors — initial findings from a comprehensive evaluation of the federally funded models are expected this year — public-policy advocates are calling for a critical review of the Title V program prior to reauthorization.

Jodie Levin-Epstein, senior policy analyst at the
“This is a long fix, and long fixes are costly. Long fixes are complicated. Long fixes are challenging.”

Center for Law and Social Policy in Washington, D.C., notes that combined federal and state funding for abstinence-only programs has totaled almost $533 million since 1996. She believes, however, that there is evidence of congressional support in both parties for increased flexibility in the use of such funds.

She recalled a November 2000 hearing on the subject of teen pregnancy by the Subcommittee on Human Resources, during which U.S. Rep. Nancy Johnson (R-Conn.) joined Democratic subcommittee members in expressing concern that the law’s support of abstinence-only education is too restrictive.

“This bipartisan call for increased flexibility [with federal funds] ... is encouraging and appropriate,” Levin-Epstein said. “The 2002 reauthorization is an opportunity for policy changes that reflect new teen pregnancy research findings.”

While Carrera believes that securing such policy changes could prove difficult, he points out that several states and municipalities are beginning to recognize the value of holistic approaches in reducing teen pregnancy, and that some already have engaged the Carrera model.

Dr. Ulder J. Tillman, director for the Department of Public Health in Delaware, notes that her state’s decision to incorporate the Carrera design into publicly funded teen pregnancy prevention efforts was based on the model’s demonstrated success at reducing adolescent birth rates and sexual activity, as well as its impact on participants’ overall health and well-being.

“Each day, the state pays the costs which can be

The following resources provide additional information related to teen pregnancy prevention programs, policies and issues:

- **Center for Law and Social Policy.** Web site: www.clasp.org
- **Children’s Aid Society.** Web site: www.childrenaid.org
- **Philliber Research Associates.** Web site: www.philliberresearch.com
- **Robin Hood Foundation.** Web site: www.robinhood.org
- “Sex Education in America: A View From Inside the Nation’s Classrooms” (September 2000). A report by Tina Hoff, Liberty Greene, Mary McIntosh, Nicole Rawlings and Jean D’Amico. Kaiser Family Foundation. Web site: www.kff.org
attributed to unintended pregnancies, including infant mortality, STD/HIV, intergenerational poverty, issues of abuse and neglect, to name a few,” Tillman said. “Prevention has been proven to be the cheaper, more effective and productive way to go.”

Carrera himself is confident that the model’s success in helping youth make their own informed life choices ultimately will ensure its successful replication.

“This is a program for ultra-marathoners,” he said. “If you’re a sprinter, you fail. And that’s very tough because we’re the quick-fix nation, right? Everybody wants to microwave the solution. You can’t microwave this.”

As for Anthony, Ernesto and Lydia, the Confidence Club continues to play an important role in their overall development, though they admit that

their classmates occasionally still deal with the subject of sex in more typical adolescent fashion.

“Sometimes people act stupid, they laugh about it and act like they’ve never heard the words before,” Ernesto said. “But the stuff we learn is really important, because it helps us be safe.”

grant package supports aid efforts

The Mott Foundation has awarded a $3.14-million package of grants to support disaster/humanitarian relief initiatives at home and abroad in the wake of the September 11 terrorist attacks.

Highlighting the package was a $1-million grant to the New York Community Trust for the September 11th Fund, established by the trust and the United Way of New York City to respond to the many needs of victims and their families in New York, Washington, D.C., and elsewhere in America.

“The events of September 11, with such far-reaching implications for so many people, called for each of us to step forward,” Mott Foundation President William S. White said. “These grants brought together our support at the local, national and international levels.”

The package also included support for several national and New York City-based organizations, for relief initiatives in Flint and southeast Michigan, and for agencies overseas. Projects ranged from providing direct assistance to victims of the attacks, to developing informed and proactive international responses to terrorism.

The Mott grant to the September 11th Fund can be used for administrative expenses related to the fund, as well as direct relief to victims and their families, and support of other nonprofit organizations.

In addition to the grant to that fund, grants for national disaster/humanitarian relief consisted of: $300,000 to The After-School Corporation, New York City; $100,000 to ACCION New York; $100,000 to Advertising Council Inc., New York City; and $40,000 to Harvard University, Cambridge, Massachusetts.

Grants that recognized Flint-area relief efforts were: $300,000 each to local chapters of the United Way and American Red Cross; $100,000 to the Flint-area chapter of the Salvation Army; $200,000 to the newly established 100 Club of Flint Endowment at the Community Foundation of Greater Flint; and $100,000 to the Emergency Response Vehicle Fund coordinated by the Genesee County Board of Commissioners. In addition, supporting education and outreach initiatives in southeast Michigan was a grant of $100,000 to the Arab Community Center for Economic and Social Services, Dearborn.

Support for international emergency aid consisted of three grants: $250,000 to the People in Need Foundation, Prague, Czech Republic; $200,000 to the International Crisis Group, Washington, D.C.; and $50,000 to Carelift International, Philadelphia.

The Foundation is exploring and may respond to other community needs in the Flint area and throughout southeast Michigan related to emergencies and preparation for disasters. Projects to promote greater understanding and tolerance among ethnic, racial and religious groups are also being considered.
A. Marshall Acuff Jr., a recently retired executive with Salomon Smith Barney Inc. in Richmond, Va., has been elected to the Board of Trustees of the Charles Stewart Mott Foundation as its 13th member.

He has been a member of the Foundation's Investment Committee for the past year and will continue to serve in that position.

As a Salomon Smith Barney senior vice president and managing director, Acuff was a member of the firm's Investment Policy Committee and was responsible for equity strategy.

William S. White, Foundation President and CEO, said Acuff has been a valuable member of the Investment Committee. He looks forward to the skills and insight Acuff will bring to the deliberations of the full Board.

"We expect that Marshall Acuff will contribute to the broader discussions and decisions regarding the Foundation and its funding priorities as he continues to assist us in making investment decisions in today's challenging market," White said. "The Mott Foundation is very lucky to have a person of his experience and ability serving on our Board."

During his career, Acuff was a chartered financial analyst and a member of the Institute of Chartered Financial Analysts. He was a fellow of the Association for Investment Management and Research and a member of the New York Society of Security Analysts, of which he is a past director. Acuff was also a 13-time member of the Institutional Investor magazine's All American Team.

Acuff, who frequently has been quoted by the media, writes a monthly column for Nikkei (Japan Economic Journal) and Handelsblatt (a German business and financial daily newspaper). He is the current chair of the finance committee and a member of the Board of Directors of Sweet Briar (Va.) College and chair of the Association of Governing Boards of Colleges and Universities. He is also a former rector of the College of William & Mary's Board of Visitors in Williamsburg, Va.

Acuff, a 1962 graduate of the College of William & Mary and a 1966 graduate of the University of Michigan Graduate School of Business Administration, had been with Salomon Smith Barney for 35 years, joining the firm in 1966. He also studied investment management at Harvard and Princeton.

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