INVEST in RESEARCH

In response, The Trust sought out expertise in child development and parenting. The search identified David Olds, PhD, who, at that time, had already conducted 15 years of research on a home visitation program for at-risk mothers. Dr. Olds, who now serves as Professor of Pediatrics and Director of the Prevention Research Center for Family and Child Health at the University of Colorado, conducted ongoing, longitudinal, randomized trials in Elmira, New York, and in Memphis, Tennessee. With support from The Colorado Trust, he undertook a third trial in Denver, Colorado, to test the program model and to compare the delivery of home visitation services to low-income, first-time mothers by paraprofessionals (community members who were trained to deliver the program, but did not have any formal health care or nursing education) to that of registered nurses. While the model had already been through the two clinical trials outside of Colorado, never before had the deliverer of the service been tested, and the initial data clearly showed that the nurses are unquestionably the most effective. Ultimately, the program Dr. Olds and his colleagues developed has nurses visiting low-income, first-time mothers in their homes with the goals of improving their health and nutrition during pregnancy, learning effective early parenting skills, and reaching goals like completing school and finding employment.

The Nurse-Family Partnership program ranks highest in terms of cost return among pre-kindergarten, child welfare, youth development, mentoring, youth substance abuse prevention and teen pregnancy prevention programs. For every dollar invested, the program returns a conservatively estimated $2.88, with additional cost savings likely in terms of reductions in preterm births, subsequent pregnancies, welfare usage, child injury and immunizations.

INVEST in IMPLEMENTATION

By 1999, with Dr. Olds’ Nurse-Family Partnership program ready for implementation, The Trust sought out a nonprofit group savvy about community organizing to conduct this work. They found Invest in Kids, a small, start-up nonprofit that was the brainchild of Denver-based attorneys and community leaders committed to identifying and putting in place evidence-based prevention programs that could help low-income kids get off to a good start. With support from The Colorado Trust, the first program Invest in Kids took on was the Nurse-Family Partnership. They worked tirelessly to understand the program and the unique needs of each community, and have been successful in getting the program up and running in 80% of Colorado’s counties, serving nearly 7,000 women to-date. And, they remain committed to continually improving their implementation process based on lessons learned in diverse communities, along with findings from a Trust-funded independent evaluation being conducted by University of Denver researchers.

INVEST in SUSTAINABILITY

Invest in Kids was also able to capitalize on a timely public policy opportunity with the Tobacco Master Settlement Agreement Funds coming to the state. While funds from The Colorado Trust couldn’t be used for lobbying purposes, core operating support from The Trust allowed Invest in Kids to secure other funds that helped them to work with state legislators and educate them about the effectiveness of the program. As a result of their extensive information sharing with legislators and a legislative champion, the Colorado General Assembly passed the Nurse Home Visitor Act in the 2000 legislative session. This legislation allocates a share of the Tobacco Settlement proceeds to the program providing sustainability for the Nurse-Family Partnership program.

Invest in Kids’ close work with community leaders has led to further requests for their help with other evidence-based programs to aid children. In response, Invest in Kids is now also bringing a second program – The Incredible Years – to Colorado families. This program addresses early childhood mental health and school readiness by working with young children, their teachers and parents to ensure that children have the social and emotional foundations they need in order to succeed.

Nationally, Invest in Kids is sought out by state and community leaders for its expertise in implementing, expanding and sustaining proven prevention programs.

This report provides communities, organizations and funders with a framework for the progression of this undertaking, as well as what’s necessary to seek out, tailor, implement, sustain and support such a prevention effort.

Invest in Kids worked closely with legislators to convey the importance and effectiveness of the program, resulting in the Colorado General Assembly passing the Nurse Home Visitor Act. This legislation, which allocates a portion of Colorado’s share of the proceeds from the Tobacco Settlement Agreement to the Nurse-Family Partnership, means the program is available to thousands of Colorado low-income, first-time mothers and their families.
Large-scale research of social issues is rarely conducted due to the expense and length of time required. But the successes achieved by the Nurse-Family Partnership program show that careful research can yield significant results.

David Olds, PhD, first undertook a randomized controlled trial – the “gold standard” of research – in Elmira, New York, beginning in 1977. He followed this with randomized controlled trials in Memphis, Tennessee, begun in 1987, and in Denver, Colorado, begun in 1993. Dr. Olds’ research was based on three theories:

1. **Self-efficacy.** Since individuals are more likely to have a sense of mastery when they have experienced success, if at-risk mothers were able to set small achievable objectives for behavior changes their confidence would be strengthened and they would be better able to cope with future problems.

2. **Human Attachment.** Since infants are instinctively driven to be close to their mothers and receive support from them, and mothers need help during pregnancy and the early months of their babies’ lives, the nurses ensure that infants’ and mothers’ needs for supportive relationships are met at this critical developmental phase.

3. **Human Ecology.** The nature of the mother-child relationship is dependent on the quality of the mother’s relationships with others in her immediate environment, meaning that nurse home visitors could encourage improved relationships with partners and other family members, as well as health and human service providers.

The extensive research found that low-income mothers who had given birth at closely spaced intervals tended to be more dependent on welfare. Their children were more likely to be born at a low birth weight and to exhibit antisocial behavior. Additionally, unemployment, poor housing and other detrimental considerations that create stressful household situations were associated with child abuse and neglect.

Compared to at-risk mothers and their families in the control group who did not receive nurse-home visitation, participants in the Nurse-Family Partnership program demonstrated remarkable results: the children were healthier and had fewer injuries, as well as better language, behavior, thinking skills and readiness for school than their peers; fathers were more involved; and mothers experienced better health and employment. Specific findings include:

- 48% reduction in child abuse and neglect
- 61% fewer arrests of the mothers and 98% fewer days in jail
- 25% reduction in smoking during pregnancy
- 56% reduction in emergency room detection of child injuries
- 78% fewer days of hospitalization for children’s injuries or ingestions
- 83% increase in maternal employment by their child’s fourth birthday
- 31-month increase in the interval between the first and second children
- 30% fewer subsequent pregnancies
- 30-month reduction in mother welfare use 15 years after birth of first child.

“The Nurse-Family Partnership receives strong support across all levels – local, state and federal – because it is research-based. With 30 years of research, and several outcomes consistent across all three clinical trials, we can say with confidence that this program significantly improves the lives of families.”

David Olds, PhD, Professor of Pediatrics at the University of Colorado and Director of the Prevention Research Center for Family and Child Health
Dr. Olds and his colleagues in nursing, education, health policy, research and program evaluation, refined the nurse home visitation research findings and developed the Nurse-Family Partnership program. Through the program, nurses visit low-income, first-time mothers in their homes with the goals of improving their prenatal health and the outcomes of their pregnancies; improving their children’s health and development by equipping parents with good parenting skills; and improving the mothers’ life courses by helping them plan future pregnancies, stay in school and find employment. The program targets these at-risk, first-time mothers because, having never before been through pregnancy, labor, delivery and parenting, they are most open to the involvement and advice of nurses. As a result, the potential for the nurses to have significant, positive impacts on these clients is tremendous.

Findings from the Denver research were particularly important in the development of the program. Comparing the delivery of home visitation services by paraprofessionals to that of registered nurses, the study found significant improvements for mothers and children visited by nurses; for paraprofessional-visited mothers there were virtually no statistically significant improvements over the control group, in which at-risk mothers did not receive any home visits.

In Colorado, the nurses are well-prepared for their role in the Nurse-Family Partnership program. Most of the nurses have bachelor, master and/or doctoral degrees, and all are registered nurses. In addition to their formal education, they also receive program-specific professional education. The nurses are qualified to handle complex clinical situations and are credible in the eyes of the family which, in turn, increases the nurses’ influence as well as the clinical influence of the program.

The program has a set curriculum that includes visit-by-visit content and assessment guidelines for weekly or bi-weekly visits to low-income, first-time mothers starting as early as possible in pregnancy and continuing until their children’s second birthdays. Mothers voluntarily elect to participate in the Nurse-Family Partnership program. They work closely with the nurses, learning how to improve their health and nutrition during pregnancy, effective parenting skills, and how to set and reach goals like completing school and finding employment. The frequency of visits changes with the stages of pregnancy and early childhood development, and is adapted to the mother’s needs. For example, visits may be held at night or on weekends to encourage the involvement of significant others (husband, boyfriend, mother, etc.). Along the way, assessments of maternal, child and family functioning are conducted and adjustments are made to ensure that the program meets the needs of each individual family.

“The Nurse-Family Partnership program outcomes have been tremendous. One example is that while Colorado was 50th in the nation in terms of immunization rates for children, the immunization rate for our program graduates was over 95%. In this and many other respects, Nurse-Family Partnership families are doing better than the general population even though they are among Colorado’s most at-risk mothers and children.”

Jennifer Atler, Executive Director, Invest in Kids
IMPLEMENTATION

To move the Nurse-Family Partnership model from controlled experimental settings to statewide implementation, The Colorado Trust provided funding to the nonprofit, Invest in Kids. A newly formed organization in 1998, Invest in Kids had conducted a national search for a successful evidence-based program that benefited children, which led them to the Nurse-Family Partnership.

The core implementation strategy Invest in Kids uses is to build broad-based local support by bringing together key players in community coalitions. They began their work in rural areas, later moving into the suburbs and large cities, working to ensure fidelity to the program while tailoring it to meet the unique needs of each community.

To date, Invest in Kids has successfully implemented the Nurse-Family Partnership program in 52 of Colorado’s 64 counties. They begin their work in each community by convening local leaders to assess their needs. Invest in Kids staff meets personally with a few community contacts, then broadens discussions to other stakeholders. In addition to schools, health care providers and social services agencies, they also include district attorneys, judges, parole officers, victim advocates, business leaders, elected officials, others involved in family and social issues, the media and existing home visitation program providers. This work typically requires numerous phone calls, face-to-face meetings and community forums – all of which are designed to build deep support across the community.

Along the way, Invest in Kids works with community stakeholders and providers to ensure that the program meets local needs, avoids duplication and maximizes services. They also provide ongoing technical assistance, often collaborating with other programs, to meet the unique needs of each community.

Because the Nurse-Family Partnership program is structured to work under the auspices of an existing local agency, Invest in Kids works with community representatives to identify strong implementing agencies. Most programs are housed in county health departments, while a few others are affiliated with nursing associations, hospitals, health centers and independent nonprofit agencies. Staff must include registered nurses, one of whom is also the Nurse-Family Partnership supervisor, and an administrative support person.

Once in place, the program strives to reach potential clients through referrals by partnering with community resources such as school nurses, obstetrical providers, prenatal and family planning clinics and other programs within the local health department.

Invest in Kids also strives to ensure that local communities work to educate state and local leaders about the importance of this evidence-based program to gain and maintain political and financial support.

To ensure its implementation process is effective, Invest in Kids invested a portion of its Trust funding in an evaluation, which is being conducted by Drs. Carl Larson and Darrin Hicks of the University of Denver. To be completed in 2007, initial evaluation findings show that while the work of building community support for a prevention program such as this can be time consuming and difficult, it is absolutely critical in order to achieve success.

“Invest in Kids’ unique and effective work in implementing the Nurse-Family Partnership program in Colorado communities led the evaluation team to develop the term ‘transfer of commitment.’ Essentially this means that Invest in Kids works with community members to ‘own’ the program and, in turn, successes are achieved at every level – agencies, community members and leaders, nurses and families.”

Carl Larson, PhD, Professor Emeritus, University of Denver and evaluator of Invest in Kids’ community implementation process
SUSTAINABILITY

From the outset, The Colorado Trust was particularly interested in determining how this evidence-based program could be sustained once foundation support ended. When The Trust provided funding to Invest in Kids, beginning in 1999, it emphasized the importance of this component. Even so, the success of the fledgling nonprofit’s efforts far exceeded The Trust’s expectations.

Along with its intensive community-convening efforts necessary for effective program implementation, Invest in Kids also met personally with some 80 of the 100 state legislators to educate them about the Nurse-Family Partnership program.

In 2000, with enthusiastic support from both parties, the Colorado General Assembly passed the Nurse Home Visitor Act, allocating 2% (roughly $2.3 million) of the tobacco settlement proceeds for 2000-2001 to local communities for Nurse-Family Partnership implementation. The legislation allocates additional funds to the Nurse-Family Partnership program each year until it caps at 19% (roughly $19 million) in 2014-2015, then maintains that level annually.

Based on the long-term efforts of Dr. Olds and his team to replicate the program nationally, and bolstered by Invest in Kids’ success in Colorado, the Nurse-Family Partnership National Service Office incorporated in 2003. Invest in Kids continues to work with the Nurse-Family Partnership National Service Office, Dr. Olds and the Colorado Department of Public Health and Environment to ensure fidelity to the model in training, guidelines, data collection, reporting, evaluation and sustainability.

Additionally, long-term support from The Colorado Trust and successes achieved in implementing the Nurse-Family Partnership helped Invest in Kids to become a solidly established nonprofit organization. Invest in Kids continues to serve the needs of at-risk children and families in Colorado and beyond. In their efforts to implement another evidence-based program – The Incredible Years – across Colorado, Invest in Kids already is seeing significant results. Designed for children ages three to eight, their parents and teachers, 72% of child participants have demonstrated better behavior overall and 78% increased their classroom social skills; parent participants showed improvements in consistent, positive discipline strategies; and teachers reported a 54% increase in confidence in managing their classrooms. Outside the state, Invest in Kids provides extensive consulting services to other nonprofits, state agencies and foundations interested in implementing evidence-based programs for at-risk families, with a particular focus on how best to build broad-based community support.

“The strong research conducted by Dr. Olds, combined with long-term support from The Colorado Trust and early successes by Invest in Kids in implementing the program proved a powerful combination in my sponsoring, and being able to generate bipartisan support for using Tobacco Settlement proceeds to fund the Nurse-Family Partnership in Colorado. Through this legislation, an expected $350 million will be available over 25 years to support at-risk, first-time mothers in our state – significantly improving lives and the health of Colorado.”

Former-Colorado State Senator Norma Anderson, sponsor of the 2000 legislation resulting in the Nurse Home Visitor Act
INVEST in VALUE

Few programs come close to the return on investment the Nurse-Family Partnership has consistently demonstrated. It has been recommended nationally by the Blueprints for Violence Prevention and the U.S. Surgeon General as an effective means to reduce youth violence. It was also recognized as a model program by the President’s New Freedom Commission on Mental Health, the Substance Abuse and Mental Health Services Administration and the National Governors Association.

In addition to the program strengthening the health and well-being of mothers and their children, it has also been shown to dramatically reduce child abuse and neglect, crime, substance abuse and dependence on welfare. There are reductions in community costs for routine health care, emergency room visits, child protection, foster care, remedial education, criminal justice, incarceration, mental health services and government assistance.

Even with these significant improvements, many of the dividends haven’t yet been calculated. Lessons learned by parents carry to other children they may have. And, by inviting friends and families during the nurse visits, and by sharing and modeling lessons afterwards, chances are good they also may influence their entire social network for generations to come.

INVEST in CHANGE

Among the lessons learned by The Colorado Trust over 15 years of providing support for the Nurse-Family Partnership & Invest in Kids Initiative are:

Identify Needs – To understand needs, conduct research or environmental scans, listen to community members and others, and carefully examine trends, data and emerging or established research.

Build Support Across Communities – Provide diverse people and organizations with the opportunity to connect, learn from each other and combine their collective energies to create momentum in addressing a shared challenge.

Provide Long-term Support – Recognize that social change efforts are often complex and require a commitment of long-term financial support.

Provide Core Support – When a nonprofit needs to “hit the ground running” and initially focus exclusively on core work rather than fundraising, it’s important to provide operating support.

Provide Flexibility – While a long-term strategy is essential, so is flexibility. For example, when Invest in Kids identified a need that wasn’t known initially – that a significant number of the Nurse-Family Partnership clients had mental health needs – The Trust provided flexibility with grant funds, allowing them to hire a mental health nursing consultant.

Emphasize Sustainability – From the initial planning stages and throughout the initiative, focus on maintaining the effort well past initial funding. Providing technical assistance to help grantees do what’s necessary to increase their staying power and effectiveness increases the opportunity for long-term success.

Evaluate Effectiveness – Independent evaluations are vital in helping grantees improve their program and processes through regular feedback.

Invest in Kids
1775 Sherman Street,
Suite 2075
Denver, Colorado 80203
www.iik.org

The Colorado Trust
1600 Sherman Street
Denver, Colorado 80203
www.coloradotrust.org

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