



MVNA Minneapolis Teen Parent Program

First year evaluation report

DECEMBER 2009

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Summary

The Minnesota Visiting Nurse Agency (MVNA) Teen Parent program provides public health nurses to low-income pregnant and parenting teens in Minneapolis. The program goals are: babies have healthy births and optimal growth and development, and teen parents demonstrate positive parenting and increase their economic self-sufficiency. Ultimately, children are prepared to succeed in kindergarten. This report is an evaluation of the program from January 1, 2008, to June 30, 2009.

Outreach and referrals

MVNA reaches teens through referrals from such agencies as: hospitals, welfare programs, local high schools, and community clinics. From April 2008 to June 2009:

- 776 pregnant and parenting teens were referred to the program.
- 440 (57%) accepted a visit from an MVNA nurse.

Profile of parenting teens visited and not visited

The MVNA Teen Parent program strives to reach all pregnant teens in Minneapolis before their 3rd trimester (28 weeks). From January 2008 to June 2009, there were 861 births to Minneapolis teens:

- 507 (59%) were referred to MVNA for services.
- 411 (81%) had at least one MVNA visit either while pregnant or postpartum.

Compared to all teens giving birth in Minneapolis, MVNA teens are somewhat more likely to be: younger (average age 17.4), first-time mothers, have less than 12 years of education, and African/African American, Hispanic, and/or foreign-born.

Acceptance

From January 2008 and June 2009, 526 teens joined the program.

- Half (51%) were 18 or 19; 15 percent were 13-15 years old.
- The largest proportion (43%) is African American, though a quarter (27%) is Hispanic.
- A large majority (82%) speak English as their primary home language, though Spanish was the primary language for 15 percent.

- Over half (60%) of the teens joined the program during their pregnancy. Asians and African Americans were more likely to accept a visit during their 1st or 2nd trimester; whereas Hispanic teens were more likely to join postpartum.

Additional visits and reasons for closure

As of June 30, 2009, 253 (48%) were still active clients. The primary reason (in 66% of cases) for closure was that MVNA was unable to locate the teen for additional visits.

- “Active” teens were slightly younger, and more likely to be Hispanic or Asian; 55 percent received Club 100 materials.
- “Closed” teens were more likely to be African American or White.

Connection to resources

Eighty-one percent of teens received referrals to community resources, with referrals to WIC, basic needs or other social services being the most common.

Club 100 materials were distributed to 252 families (48%).

Teen trust and satisfaction

Teens indicated a high level of trust with their nurse, had positive feedback on the program, and indicated the program had positive impacts on their lives.

- More than 90 percent of teens reported frequently enjoying spending time with her nurse, considering her nurse’s point of view, talking positively about her nurse.
- More than 90 percent of teens gave positive feedback about the program and their nurses in all aspects of the program.
- Almost all teens (98-99%) agreed the program improved their parenting skills, and three-quarters (77%) agreed the program helped them succeed in school.

Healthy births

Birth certificate data indicate teens who join in their first or second trimester have better birth outcomes. Among teens who enrolled in their first or second trimester:

- 95 percent had babies with a healthy birth weight, and
- 95 percent carried their babies to full-term.

Optimal child growth and development

At baseline, almost all (95-99%) babies were at their developmental age in gross and fine motor skills, problem solving, communication, and personal and social-emotional skills. Almost all (99%) were up-to-date on their immunizations within 30 days of birth; however, slightly fewer were up-to-date at follow-up (60 or more days later).

Positive parenting

Teens are providing care for their children and not involved with child protection, but do have some room for improvement in the areas of supportive home environment and bonding with their babies. At baseline:

- 92 percent showed no concerns for maltreatment or neglect.
- 97 to 99 percent were not involved with Child Protection.
- 46 percent were maintaining a supportive home environment.
- 71 percent were bonding with their babies.

Family self-sufficiency

At follow-up, teens showed self-sufficiency in several areas:

- 89 percent had health insurance (12% obtaining it while in the program).
- 97 percent had stable housing (17% obtaining more stable housing while in the program).
- 18 percent were employed (12% gaining employment while in the program).
- 73 percent were attending school (8% returning to school while in the program).
- 15-18 percents of teens had a diploma or GED (3-9% earning them while in the program).

Background

The Minnesota Visiting Nurse Agency (MVNA) provides nursing care to pregnant teens and their babies prenatally through all stages of life. The Teen Parent program focuses on providing public health nurses to low-income (incomes below 200% of poverty) pregnant and parenting teen moms (age 19 and younger) in Minneapolis and greater Hennepin County through four components:

1. Outreach and coordination with school support teams,
2. Public health nurse visits,
3. The MELD and Maternal Mental Health Curricula, and
4. Club 100 that provides supplies that support child and family development based on the needs of the family.

MVNA provides public health services to teen mothers until their child turns 2.

Theory of change

The program's theory of change assumes that: If the MVNA Teen Parent Program reaches and engages pregnant and parenting teens; public health nurses provide the teens emotional and social support and health, mental health, and parenting education; Club 100 volunteers deliver needed resources tailored to support child development and self-sufficiency; and the public health nurse and the teen develop a trusting and caring relationship – then, as a result of program participation, pregnant and parenting teens will increase and improve their connection to community resources, parenting skills, and healthy choices and then, children and families will derive these outcomes:

- healthy births (for teens enrolled before third trimester)
- children demonstrating optimal growth and development
- positive parenting
- family economic self-sufficiency

And the program will achieve these community-level outcomes:

- teen mothers complete or make progress towards completing high school
- a reduction in the number and rate of subsequent births to teens in Minneapolis

- early identification of growth and development delays in children of teen parents and referrals to appropriate resources

Ultimately, children will be prepared for kindergarten, demonstrating physical, cognitive, and social-emotional development and skills as expected for their age and ability.

In 2008, MVNA's Teen Parent Program set out to serve all pregnant and parenting teens (age 19 and other) in Minneapolis, an estimated 500 per year. The program aims to reach teens before the third trimester (28 weeks).

Evaluation methods

This evaluation report is organized in two parts: program outreach and engagement, and program outcomes. Data for both sections are collected using numerous tools from multiple sources. Data collected by MVNA nurses are entered into MVNA's e-record and sent to Wilder Research for analysis. MVNA nurses record information on the teen mother and her baby (and other children, if applicable) after each visit.

In addition, the nurses administer the following standardized tools at regular intervals: Prenatal Risk Overview (PRO) and Postpartum Risk Overview (PPRO), the Infant Development Inventory (IDI), the Ages & Stages Questionnaires (ASQ) and Ages & Stages Questionnaires®: Social-Emotional (ASQ:SE), the Home Observation for Measurement of the Environment (HOME) Inventory (Bradley and Caldwell, 1988), and NCAST Feeding Scale.

MVNA also collects data from participating teens using a trusting relationship and satisfaction tool developed by Wilder Research, based on the Trusting Relationship Questionnaire.¹ Forms are administered by MVNA and sent directly to Wilder for processing. Finally, data from Minneapolis Public Schools are provided to Wilder on pregnant and parenting teens being served by MVNA.

Using birth data from the state on births to teens residing in Minneapolis at the time of the birth, Wilder Research compared participants engaged with MVNA, teens referred but were never visited, and teens who were not located by MVNA.

Finally, MVNA maintains a referral tracking form documenting the number of pregnant and parenting teens referred by various organizations.

¹ Mustillo, S.A., Dorsey, S. and Farmer, E.M.Z. (2005). Quality of relationships between youth and community service providers: Reliability and validity of the Trusting Relationship Questionnaire. *Journal of Child and Family Studies*, 14, No. 4. pp. 577-590.

Data limitations

Data for this evaluation largely comes from MVNA's e-record. Both data collected by the nurses and from the standardized tools are entered into the MVNA e-record. To that end, both the quality and quantity of data are dependent on the reliability and completeness of the MVNA e-record.

MVNA nurses complete an electronic record after every visit. The electronic record system was designed to be used by all MVNA programs, and, as such, not all fields capture data in the best possible way for this particular program. In addition, there are over 200 fields in the electronic record into which nurses can enter data, several of which are similar. Given the large number and overlap of fields, data are missing, and individual nurses have different understandings of what information goes into each field.

Finally, despite the staff's efforts to administer forms, response rates are low for some (see Figure 1). Accordingly, much of the findings in this report are baseline – a description of how teens and their babies were doing at the time data were initially collected. Teens also skip questions on the forms, further limiting the data.

1. Response rates for data sources

	Count	Percent of eligible
Forms for all families (N=526)		
PRO, PPRO, and RRO	357	67%
Teen Trusting Relationship Questionnaire	72	14%
Parent feedback forms	69	13%
School records	163	31%
Forms for families with babies age 2 months and older (N=389)		
NCAST	108	28%
HOME	80	21%
Forms for families with babies age 4 months and older (N=230)		
ASQ	133	58%
Forms for families with babies age 6 months and older (N=163)		
ASQ:SE	76	47%

Evaluation changes in year 2

To increase the quality and quantity of data for the second year, MVNA and Wilder have made the following changes.

- The Teen Trusting Relationship and Feedback instruments have been shortened and combined to ease the burden on teens, and an incentive has been added. A gift card drawing will be held in July for all the teens who complete this new form between February and June 2010. Nurses will no longer complete their version of the Trusting Relationship tool.
- The NCAST Feeding Scale will be discontinued, and the HOME will be administered within the first six weeks of birth.
- MVNA aides have been added to help obtain completed forms from teens.

As previous planned, Wilder will obtain from the University of Minnesota's MinnLInK Project school attendance and graduation data on all teens giving birth in Minneapolis during the study period, which will give a more complete picture than data available from the Minneapolis Public Schools.

Findings

Program outreach and engagement

Outreach and referrals to MVNA

MVNA received 1,199 referrals from April 2008 through June 2009, for 776 pregnant and parenting teens. In several cases, teens were referred multiple times by different agencies. Eighty percent of the referrals came from the following 10 agencies:

- Hennepin County Medical Center's Ob/Gyn and Nurse Midwife clinics
- Women Infants and Children (WIC) program
- Broadway High School
- Minnesota Family Investment Program for 18 and 19 year olds
- Minnesota's UCare health care plan
- University of Minnesota Medical Center, Fairview
- 72-hour birth to minor report
- North Point clinic Healthy Start
- MHP
- Hennepin County Medical Center's Family Medical Center clinic

Connecting with teens and reasons for not connecting

Of those 776 teens referred, 440 (57%) received one or more visit(s) with a nurse, as of June 30, 2009. The others were not served by MVNA for the following reasons:

- MVNA contacted the teen, but did not receive a response or no reason was given (28%).
- MVNA was unable to locate the teen (15%).
- The teen refused services either permanently or until the birth of her baby (7%).
- The teen was ineligible due to her age, place of residence, or other reason (6%).

Profile of parenting teens visited and not visited

From January 1, 2008 to June 30, 2009 there were 861 births to Minneapolis teens (based on mother's place of residence at the time of the birth).

- 507 (59%) were referred to MVNA for services.
- 411 (81%) had at least one MVNA visit either during their pregnancy or after they delivered.
- MVNA served 48 percent of Minneapolis teens giving birth during this study period.

The characteristics vary somewhat for the teen mothers who accepted a visit, though MVNA did enroll teens from all cross sections of the population of pregnant and parenting teens (see Figure 2).

Teens accepting visits were slightly more likely to be African/African American, Hispanic and/or foreign-born; and first time mothers. MVNA teens were also less likely to be married, have 12 or more years of education, and use tobacco. The average age for teens accepting visits was younger (17.4) than those referred or unknown to MVNA (18).

Teens referred to MVNA that did not accept a visit were more likely to be native born, married, tobacco users, and Asian. They were less likely to be first time mothers, and Hispanic or American Indian.

Teens who were not known to MVNA were more likely to be unmarried, have 12 or more years of education (not necessarily a diploma), and tobacco users. They were less likely to be African/African American, Hispanic, and more likely to be white or Asian.

This indicates MVNA is having the most success at reaching younger teens who are first time mothers with less than 12 years of education. MVNA is also most successful at engaging African/African American, Hispanic, and/or foreign-born teens. Teens who are unknown to MVNA are older teens, perhaps those who have graduated from high school, maybe having a second or third child, and white or Asian.

Although half of Minneapolis teens giving birth accepted a visit, a majority (81%) of those receiving a referral for MVNA services did. In addition, rates of referrals and enrollment increased over time. A third (34%) of Minneapolis teens giving birth from January to July 2008 joined the program, and 61 percent were unknown to MVNA; whereas 55 percent of those giving birth from August 2008 to June 2009 enrolled and only 27 percent were unknown to MVNA.

2. Characteristics of Minneapolis teens giving birth, January 2008 – June 2009, by cohort

Characteristic	MVNA Teens	Referred, no visit ¹	Unknown to MVNA	All
Sample size	411	96	354	861
Marital status – unmarried	96%	98%	93%	95%
Average age	17.4	17.9	18.0	17.7
School status (12 or more years of education) ²	37%	38%	53%	43%
Tobacco use	9%	12%	12%	10%
Drug use	5%	5%	4%	4%
First time mother (delivered first child)	83%	73%	76%	79%
Foreign-born	27%	15%	25%	25%
Race (race data is only available for births from August 1, 2008 and later)				
Sample size	285	81	134	500
African/African American	47%	49%	43%	46%
Hispanic	28%	17%	19%	24%
White	7%	7%	11%	8%
Multiple races	4%	15%	12%	8%
American Indian	7%	6%	7%	7%
Asian	7%	5%	8%	7%

¹ This does not include teens that were referred prior to April 2008 when MVNA started tracking referrals.

² Teens with 12 or more years of education do not necessarily have diplomas or GED's. These data are not intended to measure outcomes, but rather to describe differences between teens who accept MVNA visits and those who do not.

Acceptance

From January 1, 2008, to June 30, 2009, 526 teens joined the program (accepted a first visit), 411 of whom gave birth during that time period.² Data on the characteristics of clients are in Figure 3. Half (51%) were 18 or 19, while 15 percent were 13-15 years old. The largest proportion (43%) is African American, though a quarter (27%) is Hispanic. A large majority (82%) speak English as their primary home language, though Spanish was the primary language for 15 percent.

² In addition to those who gave birth, an additional 118 teens accepted a first visit from January 2008 and June 2009. These teens either gave birth in 2007 and joined postpartum or had not yet given birth as of June 30, 2009.

3. Demographic characteristics of MVNA teens joining between January 2008 and June 2009

Age (at time of first visit)	Number	Percent
13	4	<1%
14	20	4%
15	50	10%
16	82	16%
17	108	21%
18	135	26%
19	127	24%
Race		
African American/Black	225	43%
Hispanic	140	27%
American Indian	47	9%
White	37	7%
Asian	32	6%
Other/Multiple race	24	5%
African	21	4%
Primary home language		
English	429	82%
Spanish	79	15%
Hmong	9	2%
Somali	8	2%
Oromo	1	<1%

Over half (60%) of teens joined the program (accepted a first visit) during their pregnancy (see Figure 4). Asians, African Americans, or other unidentified races/ethnicities were more likely to accept a visit during their 1st or 2nd trimester; whereas Hispanic teens were more likely to join after their baby was born.

4. Race of participants by time of fist visits, for participants joining between January 2008 and June 2009

Race	1st or 2nd Trimester	3rd Trimester	Postpartum
Asian	50%	19%	31%
Other/Multiple race	46%	17%	38%
African American/Black	45%	20%	35%
White	42%	13%	45%
African	39%	29%	43%
American Indian	38%	28%	34%
Hispanic	32%	14%	55%
Total	41%	19%	41%

Additional visits and reasons for closure

As of June 30, 2009, 253 of the 526 teens (48%) who had enrolled were still active clients. A total of 273 dropped out. The primary reason (in 66% of cases) for inactive status was that MVNA was unable to locate the teen for additional visits (see Figure 5). Another 17 percent moved out of the service area, and 11 percent refused additional visits, for a total of 271 who dropped out.

5. Reasons for inactive status for clients with a first visit January 2008 to June 2009

Reason for inactive status	Number	Percent
Unable to locate - no response	183	66%
Moved out of area	46	17%
Refused additional visit	31	11%
Miscarried	10	4%
Passed away	1	<1%
Transfer to another agency	1	<1%
Referral cancelled	1	<1%

Teens that were active as of June 30, 2009 were slightly younger, on average, than those that refused additional services or MVNA was unable to locate. “Active” teens are more likely to be Hispanic or Asian compared to “closed” teens, who were more likely to be African American or White. American Indian teens that were “closed” were more likely to be closed due to MVNA being unable to locate them, whereas “closed” African teens

were more likely to have refused services. “Closed” teens were also more likely to speak English as their primary language, and less likely to have received Club 100 materials.

6. Profile of MVNA teens by active status

	Active status	Closed – unable to located	Closed – refused
Average age (at first visit)	16.9	17.6	18.3
Race			
African American/Black	38%	47%	42%
Hispanic	30%	23%	26%
American Indian	8%	11%	3%
White	6%	9%	16%
Asian	7%	4%	7%
Other/Multiple race	5%	4%	0%
African	6%	2%	7%
English is primary home language	76%	86%	90%
Received Club 100 materials	55%	43%	39%

Teens received from 1 to 74 visits as of June 30, 2009 with 13 being the average number of visits each teen received (see Figure 7). Teens that are still active received 17 visits on average, compared to 8-9 visits for teens that refused additional visits or MVNA was unable to locate.

7. Visits received by pregnant and parenting teens

	Total teens receiving visit	Average number of visits	Range	Receive 5 or more visits
All teens	526	13	1-74	72%
Currently active teens	253	17	1-74	85%
Closed – unable to locate	183	9	1-54	67%
Closed – refused	31	8	1-30	45%

Connection to resources

Club 100 basic need materials were distributed to 252 families (48%). Each of these families received from 1 to 21 Club 100 basic need materials, with 2 being the average number of items each family received.

Resource referral data were available for 511 of 526 families who participated in the program from January 1, 2008 to June 30, 2009. Of those, 414 (81%) received at least one referral (see Figure 8). Referrals to WIC, basic needs or social services were most common, while referrals to Way to Grow, 348TOTS, preschool, ESL, HUGS and Birth to 3 were least common.

8. Referrals provided to clients for clients with a first visit January 2008 to June 2009

Organization referred	Number of families receiving	Percent of families with a referral	Percent of all families
Other – unidentified	155	37%	30%
WIC	120	29%	23%
Basic Needs	117	28%	23%
Social services	95	23%	19%
AP resources	65	16%	13%
ECFE	51	12%	10%
Education	41	10%	8%
Multiple	19	5%	4%
WTG	12	3%	2%
348TOTS	10	2%	2%
Preschool	6	1%	1%
ESL	6	1%	1%
HUGS	2	<1%	<1%
Birth-3	1	<1%	<1%
Total receiving a referral	414	100%	81%

Teen trust and satisfaction

Teens indicated a high level of trust with their nurse. Almost all (more than 90%) teens reported frequently or very frequently enjoying spending time with her nurse, considering her nurse’s point of view, talking positively about her nurse. Slightly fewer (67-74%) reported her nurse frequently or very frequently wants to spend time with her and the nurse identifies things she likes about the teen.

Teens’ feedback on the nurse and the program were also very positive. More than 90 percent of teens gave positive feedback about the program and their nurses in all aspects of the program. The area of satisfaction that received the lowest score was “the nurse visits me often enough;” however 91 percent still agreed with this statement.

In the area of perceived impact, almost all teens (98-99%) agreed the program helped with their parenting, and three-quarters (77%) agreed the program helped them succeed in school.

9. Teens' responses to trust, feedback on program, and perceived impacts

Teen trust with nurse	Very frequently	Frequently
Do you enjoy spending time with this nurse?	61%	33%
Do you consider this nurse's point of view?	60%	28%
Do you talk with others in a positive way about this nurse?	54%	28%
Does the nurse consider your point of view?	42%	48%
Does the nurse want to spend time with you?	32%	42%
Does the nurse identify things she likes about you?	27%	40%
Feedback on nurse	Strongly agree	Agree
The nurse knows a lot about pregnancy and how to have a healthy birth	82%	18%
The nurse communicates with me in a way that I understand	81%	18%
The nurse gives me helpful health information	79%	19%
The nurse is supportive of my family and culture	76%	20%
The nurse gives me useful suggestions, recommendations, and advice	74%	24%
The nurse visits me often enough	67%	24%
The nurse is able to help me connect with community services or resources	60%	36%
Feedback on program	Strongly agree	Agree
I would recommend this program to others	81%	18%
I feel supported as a parent in this program	77%	23%
It is easy for me to contact the nurse when I need to	74%	21%
Perceived impacts of program	Strongly agree	Agree
My involvement in this program has helped me understand my child's needs and development	76%	23%
My involvement in this program has helped me improve my parenting skills	67%	31%
My involvement in this program has helped me succeed in school	42%	35%

Program outcomes

The MVNA Teen Parent Program’s ultimate goal is that Minneapolis children are prepared for kindergarten, and demonstrate age appropriate physical, cognitive, and social-emotional skills and behaviors. Short-term and intermediate outcomes toward that end are healthy births, babies grow and develop appropriately, teens have strong parenting skills, and families are economically self-sufficient. Results for each goal area are described below.

Healthy births

Birth outcome data were available for 847 of the 861 Minneapolis teens giving birth from January 1, 2008, to June 30, 2009 (see Figure 12). Overall, 91 percent of babies born to teen mothers were born with a healthy birth weight (5.5 pounds or greater), and 91 percent were carried full-term (37 weeks or longer). Data indicate differences between those MVNA teens who accepted a first visit early in their pregnancy and other teens. Ninety-five percent of teens who enrolled in their first or second trimester had babies with a healthy birth weight and 95 percent were carried full-term, compared to 89 and 88 percent, respectively, of those who were not ever known to MVNA.

10. Birth outcomes of Minneapolis teens giving birth from January 2008 to June 2009 by cohort

	MVNA Teens			All other teens		Total (N=847)
	1 st or 2 nd Trimester (N=129)	3 rd Trimester (N=86)	Postpartum (N=190)	Referred (94)	Other (348)	
Healthy birth weight (5.5 lbs or greater)	95%	91%	93%	91%	89%	91%
Full-term gestation (37 weeks or longer)	95%	91%	90%	93%	88%	91%

Optimal child growth and development

Almost all (95-99%) babies were at their developmental age in all domain areas at baseline. Almost all (99%) were up-to-date on their immunizations within 30 days of birth; however slightly fewer were up-to-date at follow-up (60 or more days later). A large percentage (89%) of babies also showed normal height, weight and growth patterns at the nurse’s most recent visit. Due to the limited amount of matched pairs of data in some cases, more complete follow-up data will be provided in next years’ report.

11. Children’s developmental progress by skill area

	N	Baseline	Follow-up	Improved
Communication skills at or above developmental age (ASQ)	131	99%	NA	NA
Gross motor skills at or above developmental age (ASQ)	131	98%	NA	NA
Personal skills at or above developmental age (ASQ)	131	97%	NA	NA
Problem solving skills at or above developmental age (ASQ)	131	95%	NA	NA
Fine motor skills at or above developmental age (ASQ)	131	95%	NA	NA
Social-emotional behaviors at or above developmental age (ASQ:SE)	76	95%	NA	NA
Immunizations up-to-date (e-record)	157	99%	93%	<1%
Normal height, weight and growth patterns (e-record)	173	NA	89%	NA

Notes: Baseline is within 30 days of baby’s date of birth and follow-up is 60 or more days later. Improvement is based on matched pairs. Normal growth patterns is based on most recent visits, as no cases had data available within 30 days of baby’s date of birth.

Positive parenting

Eighty teens have completed Infant/Toddler Home Observation for Measurement of the Environment (HOME) Inventory, which assesses the home environment children are living in, and 108 completed the NCAST Feeding Scale, which measures parent-child interaction. Based on these tools, 46 percent were maintaining a safe and supportive home environment and 71 percent were bonding with their babies at baseline. Teens have room to grow in these areas; follow-up data on their growth will be provided in next year’s report, when more data are available.

At baseline, most parents (more than 90%) showed no concerns for maltreatment or neglect, and were not involved with the legal system or Child Protection. A few of those who did have concerns did improve in these areas. With so few showing concerns in these areas, significant improvement is not expected.

12. Positive parenting

	N	Baseline	Follow-up	Improved
Teen maintains safe and supportive home environment (HOME)	80	46%	NA	NA
Teen is bonding with baby (NCAST)	108	71%	NA	NA
No concerns for maltreatment or neglect (e-record)	117	92%	98%	8%
Teen is not involved with child protection (e-record)	71	97%	97%	3%
Teen is not involved with legal system (PRO)	105	94%	97%	5%
Teen is not involved with child protection (PRO)	96	99%	97%	0%

Notes: Baseline is within 30 days of first visit and follow-up is 60 or more days later. Improvement is based on matched pairs.

Family self-sufficiency

Families' increased self-sufficiency is measured through various indicators. Measures of self-sufficiency include health care use and health insurance coverage, stable housing and employment, school attendance and achievement, and reduction in or adequate spacing of subsequent births.

Health care status

The MVNA records indicate improvement in families' self-sufficiency in the area of health care. At baseline, almost all families (99%) had a primary care provider, though slightly less (86-87%) did not use the ER for non-emergency services and had health insurance. At follow-up, 11-12 percent improved in those areas (at least 60 days later), indicating that several families have obtained health insurance, and stopped using the ER for non-emergency care since being served by the program.

13. Health care status of families

	N	Baseline	Follow-up	Improved
Family has primary care provider (e-record)	161	99%	98%	1%
Family does not use ER for non-emergency care (e-record)	142	86%	84%	11%
Family has health insurance (e-record)	287	87%	89%	12%

Notes: Baseline is within 30 days of first visit and follow-up is 60 or more days later. Improvement is based on matched pairs.

Stable housing and employment

The MVNA records and PRO questionnaires provide a measure of whether families have stable housing and are employed. At baseline, 95 percent had stable housing, and 15 percent were employed. Seventeen percent of those who did not have stable housing initially did at follow-up and 12 percent that were not working at baseline were at follow-up.

14. Housing and employment status

	N	Baseline	Follow-up	Improved
Teen has stable housing (PRO)	115	95%	97%	17%
Teen is employed (either currently or on leave) (PRO)	112	15%	18%	12%

Notes: Baseline is within 30 days of first visit and follow-up is 60 or more days later. Improvement is based on matched pairs.

Education

The MVNA records and PRO questionnaires provide a measure of whether families have success in school. At baseline, 9 to 11 percent (depending on the source) of teens, had a diploma or GED, whereas 15 to 18 percent did at follow-up, indicating several teens completing high school while receiving MVNA services.

Additionally, though a slightly smaller proportion was attending school or had graduated at follow-up than at baseline (73% vs. 76%), 8 percent improved in this area.

15. Education status

	N	Baseline	Follow-up	Improved
Teen has diploma or GED (e-record)	91	9%	18%	9%
Teen has diploma or GED (PRO)	89	11%	15%	3%
Teen attending school or graduated (e-record)	272	76%	73%	8%

Notes: Baseline is within 30 days of first visit and follow-up is 60 or more days later. Improvement is based on matched pairs.

Minneapolis Public Schools had records for 236 MVNA teens, indicating they were enrolled in a MPS school at some point; the other teens may have been enrolled in other districts. Among those teens, MPS only had attendance and progress data for 165 (70%). Half (57%) were actively enrolled at the end of the year. Over a third (35%) had regular

attendance (attended over 85% of the days they were enrolled); another 52 percent attended between 50 and 84 percent of the days they were enrolled. On average MVNA teens attended school 73 percent of the school year. Twelve teens had graduated (3 in 2008 and 9 in 2009), and 42 percent were on track to graduate. If data are available, next year's report will compare MVNA teens with Minneapolis Public Schools' Teenage Pregnant and Parenting Program.

16. 2008-09 school attendance and progress of MVNA teens enrolled in MPS

	MVNA Teens (N=144-162)	MPS TAPPP students
Actively enrolled		
End of 1 st quarter	84%	NA
End of 2 nd quarter	73%	NA
End of 3 rd quarter	68%	NA
End of year	57%	NA
Mobility (number of locations)		
1 school	81%	NA
2 or more schools	19%	NA
Attendance		
85-100%	35%	NA
50-84%	52%	NA
Less than 50%	14%	NA
Mean percent present	73%	NA
On track to graduate		
In 4 years	15%	NA
In 5 years	19%	NA
In 6 years	8%	NA
Off-track	51%	NA
Graduated in 2008 or 2009	8%	NA
Status at end of year		
Continuing	51%	NA
Dropped/unknown	30%	NA
Transferred/moved	12%	NA
Graduated	7%	NA

Subsequent births

Data on subsequent pregnancy were available on 231 teens. Nine (4%) had a subsequent pregnancy while open to public health nurse services.

Appendix

Overview of all indicators

	N	Baseline	Follow-up	Improved
Communication skills at or above developmental age (ASQ)	131	99%	NA	NA
Gross motor skills at or above developmental age (ASQ)	131	98%	NA	NA
Personal skills at or above developmental age (ASQ)	131	97%	NA	NA
Problem solving skills at or above developmental age (ASQ)	131	95%	NA	NA
Fine motor skills at or above developmental age (ASQ)	131	95%	NA	NA
Social-emotional behaviors at or above developmental age (ASQ:SE)	76	95%	NA	NA
Immunizations up-to-date (e-record)	157	99%	93%	<1%
Normal height, weight and growth patterns (e-record)	173	NA	89%	NA
Teen maintains safe and supportive home environment (HOME)	80	46%	NA	NA
Teen is bonding with baby (NCAST)	108	71%	NA	NA
No concerns for maltreatment or neglect (e-record)	117	92%	98%	8%
Teen is not involved with child protection (e-record)	71	97%	97%	3%
Teen is not involved with legal system (PRO)	105	94%	97%	5%
Teen is not involved with child protection (PRO)	96	99%	97%	0%
Family has primary care provider (e-record)	161	99%	98%	1%
Family does not use ER for non-emergency care (e-record)	142	86%	84%	11%
Family has health insurance (e-record)	287	87%	89%	12%
Teen has stable housing (PRO)	115	95%	97%	17%
Teen is employed (either currently or on leave) (PRO)	112	15%	18%	12%
Teen has diploma or GED (e-record)	91	9%	18%	9%
Teen has diploma or GED (PRO)	89	11%	15%	3%
Teen attending school or graduated (e-record)	272	76%	73%	8%

Notes: Baseline is within 30 days of first visit and follow-up is 60 or more days later. Improvement is based on matched pairs.