MARATHON COUNTY
BOARD OF HEALTH AGENDA

Date & Time of Meeting: **Tuesday, August 2, 2022, at 8 a.m.**

Meeting Location**: Courthouse Assembly Room, B-105, 500 Forest Street, Wausau WI**

Committees Members: Michelle Van Krey-Chair, Tara Draeger-Vice Chair, Helen Luce, Katie Dively, Stacey Morache, Jennifer Aarrestad, Yee Leng Xiong, Ann Lemmer

Marathon County Mission Statement: *Marathon County Government serves people by leading, coordinating, and providing county, regional, and statewide initiatives. It directly or in cooperation with other public and private partners provides services and creates opportunities that make Marathon County and the surrounding area a preferred place to live, work, visit, and do business. (Last updated: 12-20-05)*

Marathon County Health Department Mission Statement: *To advance a healthy Marathon County community by preventing disease, promoting health, and protecting the public from environmental hazards. (Last updated: 5-7-13)*

Persons wishing to attend the meeting by phone may call into the **telephone conference beginning five (5) minutes prior to the start time indicated above using the following number:**

Phone #: +1-408-418-9388 **Access Code:** 962 376 748

When you enter the telephone conference, **PLEASE PUT YOUR PHONE ON MUTE!**

1. **Call Meeting to Order**
2. **Pledge of Allegiance**
3. **Public Comment (15 Minutes)** (*Any person who wishes to address the County Board, or one of its committees, during the "Public Comment" portion of meetings, must provide his or her name, address, and the topic he or she wishes to present to the Marathon County Clerk, or chair of the committee, no later than five minutes before the start of the meeting.)*
4. **Approval of the June 14, 2022, Board of Health Meeting Minutes**
5. **Policy Issues for Discussion and Possible Action**
   - **A. None**
6. **Operational Functions Required by Statute, Ordinance, or Resolution**
   - **A. None**
7. **Educational Presentations and Committee Discussion**
   - **A.** Prenatal and post-natal care program model transition
   - **B.** Review of Marathon County population health data related to sexually transmitted infections (STIs)
8. **Next Meeting Date & Time, Location, Announcements and Future Agenda Items:**
   - **A.** Committee members are asked to bring ideas for future discussion.
   - **B.** Next Board of Health Meeting: Tuesday, October 11 at 8 am
9. **Adjournment**

**Any person planning to attend this meeting who needs some type of special accommodation in order to participate should call the County Clerk's Office at 261-1500 or e-mail countyclerk@co.marathon.wi.us one business day before the meeting*

SIGNED: _____
Presiding Officer or Designee

EMAILED TO: Wausau Daily Herald, City Pages, and other Media Groups NOTICE POSTED AT COURTHOUSE

EMAILED BY: _____ BY: _____

DATE & TIME: _____ DATE & TIME: _____

Marathon County Board of Health Minutes

Meeting Date/Time: **Tuesday, June 14th, 2022, at 8:00 AM**
Meeting Location: **Marathon County Courthouse**
Assembly Room
500 Forest Street
Wausau, WI 54403

Present - In Person: Stacey Morache, Jennifer Aarrestad, Ann Lemmer, Michelle Van Krey

Present - Via WebEx: Yee Leng Xiong, Tara Draeger

MCHD Staff: Eileen Eckardt, Noor Hassan (Online)Rachel Klemp-North (Online), Becky Mroczenski (Online), Hannah Schommer (Online), Laura Scudiere, Kim Wieloch, Kang Chu Yang

Others via WebEx: Kim Trueblood

Others In Person: Paul Simmonds, Lance Leonhard

Committee Members: Tara Draeger, Helen Luce, Katie Dively, Stacey Morache, Jennifer Aarrestad, Yee Leng Xiong, Ann Lemmer, Michelle Van Krey

1. Call to Order
Chair Van Krey called the meeting to order at 8:00 AM.

2. Pledge of the allegiance.

3. Public Comment Period (Limit to 15 Minutes)
A. None

4. Approval of the Minutes
A. **May 10, 2022, Board of Health Meeting Minutes**

Motion to approve the minutes of the April 12, 2022, Board of Health meeting made by Stacey Morache. Second by Jennifer Aarrestad. Motion approved.

5. Policy Discussion and Possible Action
A. None

6. Operational Functions Required by Statute, Ordinance, or Resolution
A. None

7. Educational Presentations/Outcome Monitoring Reports
A. Reporting relationship with Health and Human Service Committee and Review of Governance Functions
County Administrator, Lance Leonhard briefed the Board of Health on their program role reporting relation and governance functions. The Marathon County Health Department is a

level 3 department and derives goals from state statute.

B. Review of MCHD Annual Reports 2019, 2020, 2021
Health Officer, Laura Scudiere thanked Judy Burrows and Kang Chu Yang for coordinating the completion of the health department 2019-2021 annual reports. All reports were provided in the packet prior to the meeting and Scudiere gave an overview of each annual report. The 2019 report reflected pre-pandemic programming and health department functions. The 2020 report showed changes and programs affected by COVID, such as reallocating resources and staff roles and duty changes. 2021 showed leadership changes, the second year of the COVID response, as well as revitalizing the health department programs. The 2022 Annual Report will be available in May of 2023.

8. Next Meeting Date & Time, Location, Announcements and Future Agenda Items:

A. Committee members are asked to bring ideas for future discussion.
B. Next Board of Health Meeting: Tuesday, August 2 at 8 am

9. Adjournment

Motion to adjourn made by Jennifer Aarrestad; second by Stacey Morache. Motion approved. Meeting was adjourned at 8:55 AM.

Respectfully submitted,

Kang Chu Yang, Recorder

START RIGHT: A FORMATIVE OUTCOME EVALUATION, 2015-2019

Barry S. Delin
October 2021

This report was produced for the use of the Marathon County Department of Health. Its production was sponsored by the UniverCity Year Program, housed at the Center for Wisconsin Strategy at the University of Wisconsin – Madison

EXECUTIVE SUMMARY

This is an evaluation of Start Right, a public program operating in Marathon County, Wisconsin. Start Right's target population consists of pregnant women, young children and their families who are at a high risk for poor outcomes. Its overarching goals are to make it more likely that babies are born healthy, to prevent various forms of abuse and neglect, and, more generally, that young children are safe in their homes, experience nurturing relationships and prepared to benefit from formal education.

Start Right has two main components. The first is called First Steps, a prenatal care coordination program. The second major effort is Step by Step, which addresses the needs of children from birth up to age five through a home visiting program. Both First Steps and Step by Step claim to utilize proven evidence based intervention models.

Start Right is housed in the Marathon County Health Department and gets roughly 70% of its funding from the county government. The Health Department directly implements First Steps. Responsibility for delivering Step by Step is contracted to a private entity, Children's Service Society of Wisconsin. Program eligibility criteria are unusual for these kinds of programs as neither use means testing nor participation in another means tested program such as Medicaid to determine eligibility. Instead, both First Steps and Step by Step provide services based on processes that directly identify the level of risk for undesirable outcomes. Nonetheless, it is important to remember that the distribution of risk is not random, but is closely related to the distribution of structurally generated economic and social inequalities.

Evaluation Approach

This evaluation was undertaken at the request of the Marathon County Health Department. It was carried out with the support of the UniverCity Year program of the University of Wisconsin – Madison. UniverCity Year works with local governments and other community stakeholders to identify projects that would benefit from expertise available through the university.

Because of limits on time, resources, and, above all, the range and quality of readily available data, this evaluation has limited aims. It is not a comprehensive assessment of Start Right. It prioritizes the examination of program outcomes over that of implementation quality. It looks only at a relatively brief, albeit recent, time period of 2015 through 2019. It focuses exclusively on First Steps and Step by Step to the exclusion of other program components. Lastly, the evaluation scrutinizes only short term outcomes; there is no consideration of longer term outcomes that require information about events that occur after children age out of any Start Right activity.

Critically, in part because of data limitations, there is no method for estimating effect sizes; that is, how much of the observed results can be attributed to First Steps or Step by Step. However, the deeper issue is the inability to find or create a comparison

group of sufficient quality to serve as a proxy for what would have been expected to happen without the programs.

In lieu of providing defensible estimates of program effect sizes, the approach to assessing program outcomes is as follows. First the annual outcome data provided from Start Right is displayed and the median value for the series is calculated. Then, when First Steps or Step by Step has identified a target level for the outcome, the median is compared to the outcome. In some cases there is additional discussion of trends observable in the data series, especially when there is concern as to whether the median value alone provides enough information.

In the absence of a comparison group or data that can be used to track program participants over time, the evaluator sought to identify outcome information for "reference groups," preferably Wisconsin based. These references are of two types. The first type is full populations (or representative samples from those) of pregnant women, of children in the age range Start Right serves, or of their households. As the proportions of those experiencing conditions strongly associated with poor pregnancy and early childhood outcomes are relatively small, the expectation is that outcome levels will be better than for those Start Right is intended to serve. To the extent, that First Steps and Step by Step outcomes approach those reported for these full population references, it implies good program performance. The second type of reference is groups composed of persons experiencing levels of risk factors similar to those served by Start Right. The conjecture here is that outcomes for these groups will be relatively poor. Hence, if Start Right programs are effective, their observed outcome levels should be somewhat better.

The main shortcoming of this approach should be clear; it lacks standards for assessing whether observed differences are large enough to matter. A common recourse is to examine whether the differences are not a matter of chance. That is the purpose of testing for statistical significance. Unfortunately doing this is precluded because outcome data from Start Right lack information about the distribution of cases. Assessment of the meaning of observed differences between Start Right program outcomes and those of the reference groups, or, for that matter, Start Right specified outcome targets, is left to the evaluator's, or ultimately, the reader's judgment. This is the reason the word "formative" is used in this report's title. Because of the expedients used, all conclusions must be viewed as preliminary.

Finally, Start Right staff expressed interest in having a cost-benefit or return on investment analysis as part of this evaluation. This was not done. The fact that there was no basis for estimating net program effects made this impossible, irrespective of whether other requisite information and resources had been available.

Program Implementation

As noted, this evaluation gives only modest attention to Start Right program operations, especially the quality of service delivery. To the extent this was done, available evidence supports a conclusion that it is more than satisfactory.

It is certain that First Steps and Step by Step are providing services to their intended clienteles. This is insured by the two-step eligibility processes that are designed specifically to identify the relevant risk factors, provided staff dependably follows program procedures. No evidence was found to suggest otherwise. Additionally, the limited data available about participants' characteristics are consistent with those associated with experiencing high levels of risk factors.

There is substantial documentation that the service models used are evidence based and determined to be effective according to U.S. Department of Health and Human Services standards. Moreover, in the case of Step by Step the evidence of close adherence to the service model is compelling, especially as it has achieved external accreditation. The case for First Steps is not as strong, mainly because it has not been externally reviewed in the recent past. Moreover, though the program appears to have strong internal processes to support quality assessment and improvement, this evaluator has not seen adequate documentation about their actual use. Both First Steps and Step by Step regularly survey participants. Ratings of program services and operations are exemplary.

Outcomes

This evaluator concludes that Start Right is an effective program. This conclusion is based on the performance of its First Steps and Step by Step components. This positive assessment does not mean that outcomes are satisfactory in all areas or that where they are further improvement isn't achievable. Moreover, because of limitations of the data and methods used, this conclusion should be accepted with some caution.

First Steps is found to meet or exceed program goal targets in six of nine cases (67%). There was one case where performance appears a little short of the target and two more where it fell appreciably short. In two of these three cases, First Steps performance appears to be better than expected when compared to the reference groups. On the third, there is no reference group, but over the last years of the evaluation period First Steps' performance has made up most of its shortfall compared to the target level.

There are nine outcome goals for which First Steps has not specified a target level. Of these, this author finds that performance is relatively strong vis-a-vis the reference groups in five of the eight cases where it was possible to make an assessment. There is no reference group for the remaining outcome (which is a metric about referral and use of depression related services). However the swift decline in this outcome level over the final years of the evaluation period is concerning.

Turning to Step by Step, eight of the twelve outcome targets were met or exceeded. Of the four not met, in two cases the median values were strong enough to be rated as "near attainment." In two of the cases of non-attainment, Step by Step outcomes appear favorable in comparison to those for the reference group. In the single case of especially low performance, a contributing factor is the unavailability of external services to respond to participant needs.

To summarize, First Steps either meets performance targets or there is evidence of strong performance relative to the reference groups looked at for 13 of 18 (72%) outcomes. For Step by Step, this criterion is met for 11 of 14 (79%) outcomes. Moreover, these generally laudable results occurred while Start Right was suffering significant resource reductions. Between 2016 and 2019, revenues declined about 5.3%. When adjusted for inflation the decline is 12.1%.

Recommendations

Twelve recommendations are presented at the end of this report. These recommendations are mainly aimed at improving the ability to assess program activities and outcomes, whether that is done internally or externally. Adopting the recommendations may support improvements in program delivery and management. Nonetheless, the recommendations entail costs, both fiscal and in the use of staff time. Eight of the more important recommendations are offered below, absent some of the arguments made on their behalf.

- It is strongly recommended that a common database be created for First Steps and Step by Step. A common database would expedite assessment efforts and may also have benefits for program management and coordination of services.

- To the extent possible, program outcomes should be followed within a program (especially Step by Step) and across programs. As Start Right is intended to support the development of the young children it serves, it is important to develop the capacity to track individuals and the cohorts of which they are members across time.

- When providing data for assessment purposes, especially to external parties, it is important to provide information about the distribution of both outcomes and of participants' demographic characteristics. This is best done by providing de-identified individual level data. However, when this cannot be done, providing information about the distributions (especially measures of variance) will support the ability to tell whether observed differences across groups or time are real.

- Identifying comparison groups and being able to obtain relevant data for them would greatly increase the quality of assessments of outcomes and of program implementation. Doing this would support methodologically sound estimates of program net impacts.

- In the absence of an adequate comparison group, Start Right should consider continuing the expedient of using reference groups comparable to what was done in this report. However this should be done on a more systematic and institutionalized basis, potentially involving better alignment of data definitions with those used by the entities that collect and analyze data about the reference groups.

- Start Right should continue to reexamine target outcome levels over time to make sure they are consistent with evidence based knowledge as to what is both desirable and doable. Priority should be given to First Steps where targets have not been set for about half of the outcomes examined in this report.

- First Steps needs to better document its efforts to monitor program delivery and to take and complete any needed corrective action.

- Should Start Right wish to arrange for a cost-benefit or return on investment study with a strictly local focus, it is recommended that, at minimum, it extend the study beyond Marathon County government agencies to include other public agencies in the county that incur costs or benefits in reference to Start Right's programmatic goals.

TABLE OF CONTENTS

Executive Summary	page 1
Table of Contents	page 6
Acknowledgements	page 6
Introduction	page 7
Program Description	page 8
First Steps	page 9
Step by Step	page 11
Evaluation Design	page 13
Implementation Quality	page 16
Demographic Information	page 20
Outcomes	page 25
Outcomes: First Steps	page 27
Outcomes: Step by Step	page 38
A Note on ROI and Cost-Benefit Analysis	page 47
Summary and Recommendations	page 49
Summary of Findings	page 49
Recommendations	page 52

ACKNOWLEDGEMENTS

The author expresses deep appreciation for the contributions that Joan Theurer, the recently retired Marathon County Health Officer, made to this study. She served as the liaison between the author and the Start Right program. In addition to providing access to program data, Ms. Theurer provided helpful advice as to the design of the evaluation and how to interpret program information. The contributions of two other persons also need to be acknowledged. Gavin Luter, Director of the UniverCity Alliance, took something of a chance in allowing someone who is neither a UW employee nor student to take on this evaluation. I trust that this evaluation will justify his trust in my abilities and resolution. Finally, thanks to Mireille Perzan at Wisconsin Department of Health Services for fulfilling a custom data request from the Wisconsin Pregnancy Risk Assessment System survey that significantly improved this study.

INTRODUCTION

The Start Right program provides a range of services to women, children and families in Marathon County Wisconsin for the purpose of facilitating healthy births and the subsequent development of those newborns through age five. Start Right is administered by the Marathon County Health Department, but is better understood as a partnership with Children's Service Society of Wisconsin.[1]

This report is a limited evaluation of program outcomes over a five year period, that of 2015 through 2019. This period was chosen to insure that the assessment focused on what have recently been Start Right's key program components and which appear likely to remain so. Though the choice of 2015 as the start year is one of convenience, the 2019 end year is chosen for two reasons. The main reason is data availability; though it is likely that the Covid pandemic had a significant impact on the delivery of almost all health and social services whether in Marathon County or elsewhere in the U.S.

A second important limitation to the scope of this outcome evaluation is that it focuses solely on the Start Right program's two largest and most important components: First Steps and Step by Step. First Steps is a program directed toward supporting and educating mothers during pregnancy and the weeks immediately following birth. Step by Step is a home visiting program targeted toward families with a child usually no older than three. Both these efforts are designed to serve mothers, children and families that are facing stressful conditions that are likely to impede a child's development. While Start Right offered two additional program components early in the evaluation period, budgetary constraints led to the elimination of one of these, Stepping Stones, and the diminishment of the remaining one. That program component is called Stepping Out and is an effort to connect parents (and those acting as parents) to relevant support and educational resources external to Start Right. Stepping Out is a significantly smaller program relative to First Steps and Step by Step.

As will be detailed later there are important limitations regarding the types and characteristics of data made available for this study. That is why the title of this report includes the word "formative." This report includes recommendations which are intended to facilitate a future, more comprehensive evaluation. Even if that doesn't happen, the recommendations should contribute to Start Right's internal quality assessment and program improvement activities.

This evaluation should be viewed as part of a broader collaborative effort between Marathon County and the UniverCity Year program at the University of Wisconsin – Madison. The UniverCity Year program works with local governments and

[1]Children's Service Society of Wisconsin is often referred to in the context of Start Right as Children's Hospital or a variant thereof such as Children's Hospital of Wisconsin – Community Services. The Children's Service Society of Wisconsin is a private non-profit provider of Social Services, not a hospital or medical clinic per se. Children's Service Society of Wisconsin is affiliated with Children's Hospital and Health System, Inc. which does in fact operate hospitals.

other community stakeholders to identify projects that would benefit from expertise available through UW – Madison and then identifies and supports faculty, staff, and students in providing that expertise. Additionally, this is not only an externally conducted evaluation, but an independent one as well. While staff at the Marathon County Health Department provided considerable and important input as to the scope of work for this report, this author made the final choices as to methods and content.

PROGRAM DESCRIPTION

Start Right provided the evaluator with a document describing the overall program and its major components. The global description reads as follows:

> *Start Right provides support and parent coaching for families throughout Marathon County from pregnancy to age five. Start Right focuses on developing safe, healthy, nurtured and school ready children and parents who are connected to community resources to support healthy parenting.*[2]

The document goes on to mention that Start Right has the overarching goals of having babies born healthy and preventing child abuse and neglect. Additionally, "program" as opposed to "overarching" goals are specified: (1) children will be healthy, (2) safe, (3) experience nurturing relationships with their parents, and (4) be ready to benefit from school when they begin that experience. Communication with program staff added another two program goals: parents will be knowledgeable about community resources and those parents with AODA, domestic violence, and/or mental health concerns will get access to appropriate services. Staff expressed the view that this last program goal has become increasingly important.

All of the program goals can be viewed as pathways to achieve the overarching goals, especially the prevention of abuse and neglect when those terms are construed beyond their narrow legal definitions. Start Right can and probably should be viewed as a program intended to help children to thrive in circumstances that would otherwise be likely to impede their development.

Start Right was first piloted in one Marathon County community in 1994; it became a county wide program by 1999. The First Steps and Step by Step components have been continuously implemented in recognizable form since the beginning, though there have been periodic adjustments to both. Start Right has always claimed a commitment to basing its activities and standards on evidence based practices. Veteran staff has reported that many of the programmatic adjustments were made to insure this commitment was kept.

Start Right is sometimes characterized as a program that is based on universal access. This is something of a misnomer for the First Steps and Step by Step

[2] From an apparently unpublished and undated document titled "Start Right Program Description" provided by Start Right staff on May 6, 2021. It is this author's belief that this document was prepared specifically for his use. Most of the material in this section of the report is taken from this document.

components as both have well articulated eligibility requirements and determination processes. What is true and atypical for efforts of their types is that they are not means tested and eligibility is not dependent on other, usually means tested, program participation (e.g. Medicaid). Rather, both First Steps and Step by Step independently assess the mother's and/or child's need for services utilizing purpose designed standards and processes.

Finally, Start Right relies on multiple funding sources, both public and private, with Marathon County making by far the largest contribution. For example, in 2019 approximately 71% of Start Right's $1,725,000 total funding was derived from the county's tax levy. This funding is especially critical for Start Right activities, such as First Steps, that are provided through the Marathon County Health Department (MCHD). The tax levy provided nearly 85% of First Steps funding in 2019.[3]

First Steps

First Steps can be characterized as a prenatal care coordination program (PNCC) which includes strong parental educational and nutritional counseling components. Services do not end at birth, but can continue for at least sixty days following it.[4] Available services are congruent with those specified for prenatal care coordination programs by Wisconsin's Medicaid program (known as Medical Assistance or MA). There is an emphasis on working closely with a woman's primary physician and other health care providers to identify and coordinate needed services as well as helping to link program participants to other community resources. First Steps has standards governing the minimum number of in-person visits with clients; however the types and intensity of services is highly individualized reflecting participant needs. The Marathon County Health Department directly provides program services using its own public health nurses for this purpose.

Referral to and enrollment in First Steps is, according to program staff, best viewed as involving two principal cohorts. Those in the first cohort enter First Steps relatively soon after learning they are pregnant. These women are followed through their pregnancies. Members of the second cohort enter in the period just prior to or soon after birth. Program staff labels these components as, respectively, First Steps Prenatal and First Steps Families with Newborns. Though it is arguable whether these components are truly conceptually distinct as, presumably after giving birth First Steps Prenatal participants receive a similar set of services as Families with Newborns participants, program staff track enrollments and to a lesser degree outcomes separately.[5]

---

[3] This information is from Attachment B of the "Purchase of Service Contract, Marathon County and Children's Service Society of Wisconsin," January 2019.

[4] The limit is 60 days when services are paid through Medicaid reimbursement.

[5] To express doubt that the Prenatal and Families with Newborns sub-programs are conceptually distinct does not mean that the typical participant of each sub-program gets the same package of services. Those in the prenatal cohort certainly receive more services related to completing a healthy pregnancy. Families with Newborns will

There is no prescribed path to First Steps; among the most common referral sources are community agencies, health care providers, and self-referral. By contrast, there is a rigorous eligibility assessment process to make sure program entrants are at high risk for adverse pregnancy related outcomes. Potential entrants are assessed using the Medicaid Prenatal Care Coordination Questionnaire.[6] To qualify for First Steps, a woman must have a score of at least four on that instrument. This two-step process, provided it is properly implemented, should insure that First Steps serves those for which it is intended.

First Steps services and processes, as all other Start Right components, are aligned with current evidence based practices. However unlike Step by Step, First Steps is not designed to be compliant with a specific model. While it appears to draw inspiration from multiple approaches to prenatal care coordination, the program adheres to Wisconsin Medicaid Prenatal Care Coordination Standards and makes extensive use of available training opportunities and materials. Moreover, there is an extensive literature documenting the effects of PNCC programs and of their components for First Steps to draw upon, though there is less consensus as to which practices are most effective than for home visitor programs.[7]

Table 1 provides First Steps enrollment data on an annual basis. There is always some carryover of clients into the following year, due to the length of pregnancy and the post-natal service period. While enrollment declined about seven percent during the evaluation period, there is insufficient evidence to declare there is a trend.

Table 1: First Steps Annual Enrollment, 2015 through 2019

2015	2016	2017	2018	2019	% Change	Median
97	127	97	111	90	-7.2%	97

Note: Data are from annual PNCC Program Outcomes reports provided by the Marathon County Health department. Values represent those clients who had at least 3 visits with a program nurse.

Though no First Steps participant is required to participate in another public program, according to staff about 95% of recent participants have some form of MA (Medicaid) eligibility at the time of enrollment. Based on other information this estimate

---

need to go through needs assessments and initial coordination activities in a later and more condensed period than those in First Steps Prenatal.

[6] The proportion of pregnant women in Marathon County assessed using this instrument is, according to program staff, about 8%. The true proportion of pregnant women who would score four or higher on this instrument is unknown. However, there is state level data which suggest that the proportion of women facing significant risks for having a poor outcome is much higher. About 41% of new mothers had one or more medical risk factors and 21% did not receive adequate prenatal care. Wisconsin Department of Health Services, Division of Public Health, Office of Health Informatics. *Annual Birth and Infant Mortality Report, 2017.* June 2019, p.8. Accessed at https://www.dhs.wisconsin.gov/publications/p01161-19.pdf

[7] For a short but useful review of this literature see, Hillemeier, Marianne M. *Effects of Care Coordination Services on Maternal and Child Health Outcomes.* 2013, pp. 2-3.Accessed at https://media.mchtraining.net/research/documents/finalreports/Hillemeier_r40-MC_21519_final_report.pdf

appears accurate for pregnant women and newborns, but may be a little high for mothers after giving birth.[8] As Start Right encourages those eligible for the WIC (The Special Supplemental Nutrition Program for Women, Infants and Children) to participate, one would expect a substantial utilization rate. This is borne out by program data. Using 2017 as an example, 96.5% of those eligible for WIC utilized the program. After taking account for those ineligible, the WIC utilization rate amongst all First Steps participants the 2017 rate is 88.2%.

Step by Step

In Step by Step the primary emphasis shifts from the woman who recently gave birth to the child and the household where that child resides. Step by Step is primarily a home visiting program that is guided by the standards promulgated through Healthy Families America. This model places a high value on sensitivity to cultural context, which may have been a factor in Start Right's decision to adopt the model.[9] Step by Step also uses training and program elements drawn from the Parents as Teachers model. Program objectives remain comparable to those for First Steps, but more directly reflect the developmental needs of the age group served (birth to five). While Step by Step remains concerned with the welfare of the mother, that concern is in large part prompted by the contribution that makes to the quality of the participating child's environment.

While there are numerous models for early childhood home visiting programs, only about 40% of those evaluated by the National Home Visiting Resource Center (HomVEE) using criteria established by the U.S. Department of Health and Human Services have been determined to improve outcomes in at least one of eight domains (maternal health, child health, positive parenting practices, child development and school readiness, reduction in child maltreatment, family economic self-sufficiency, providing linkages/referrals to community resources and supports, and reducing juvenile delinquency, family violence and crime).[10] By contrast, there is evidence that the Healthy Families model's effectiveness is strong across all of the domains.[11] Step by Step's commitment to this model is serious and externally validated. Step by Step sought and achieved accreditation from Healthy Families America. Furthermore, the

---

[8] Income limits for Medicaid eligibility in Wisconsin are considerably higher for pregnant women than for parents. Thus, it is somewhat less likely that women who enter First Steps after giving birth have MA eligibility. Data from Step by Step give some indication of these dynamics. At the time of enrollment (or transition) into Step by Step, 87% of mothers were MA recipients compared to 93% of the children. Both these figures declined over the following 12 months to 77% for the mothers and 89% for the children. See Children's Hospital Wisconsin Community Hospital – Community Services. *2019 Start Right Outcomes Annual Report Performance Report Performance Indicators – At a Glance*. 2020, p. 12.

[9] This is the author's conjecture. Start Right was designed and first implemented in the 1990s, a period not long after substantial Southeast Asian immigration to Marathon County.

[10] See National Home Visiting Resource Center. *Early Childhood Home Visiting Models, Reviewing Evidence of Effectiveness.* OPRE Report #2020-126 (December 2020). Accessed at https://nhurc.org/about-home-visting/models

[11] A brief review of the research used to judge the Home Families model effective and its strength can be found at the National Home Visiting Resource Center website at https://homvee.acf.hhs.gov/effectiveness/

Parents as Teacher model which Step by Step also utilizes (for example, its instruments to assess parent/child interaction) has likewise been determined by HomVEE to be effective, though the strength and depth of the peer reviewed research is less than for the Healthy Families model.[12]

Step by Step is delivered through Children's Service Society of Wisconsin (CSSW) using staff trained as Family Support Specialists. Legally CSSW operates the program under contract with Marathon County, but historically the relationship with the Marathon County Health Department has been characterized as a partnership. Home visits can be as often as weekly during the six months following enrollment and thereafter as often as justified by the family's progress through the stages of the Healthy Families model and as negotiated between the family and Step by Step staff. Services include parent coaching, case management, developmental screening, and referral to external services based on the child's and family's needs.

By contrast to First Steps, most referrals to Step by Step come from a single source, First Steps. Start Right staff reports that in recent years that the proportion of referrals from First Steps has varied in a range from 82% to 91%. The single most important source for the remainder of the referrals has been community agencies.

Eligibility for Step by Step is again determined through a two stage process. The initial step is to assess the presence of stressors or risk factors in the child's household. Depending on the type and number of stressors found, the situation will then be further evaluated using the Parent Survey, an instrument developed by Healthy Families America (HFA). The presence of a single primary stressor or risk factor is enough to warrant screening via the Parent Survey. Primary stressors include AODA, domestic violence, depression or a diagnosis of mental illness, and a history of abuse. When there is no primary stressor, but at least three secondary stressors or risk factors are confirmed, the case is also screened using the Parent Survey. These secondary stressors include the mother being single, being defined as a teen, having less than twelve years education, speaking English as a second language, or experiencing a first time birth. An additional secondary stressor is having a child with a special health care needs in the household. Critically, having income at or below the federal poverty level lowers the number of secondary stressors required to prompt the use of the Parent Survey from three to one.

Eligibility is confirmed by having a score of at least 25 on the Parent Survey, an instrument that seeks to assess the future risk of child maltreatment. The survey is administered as an interview conducted by an individual trained to HFA standards. Parent(s) are asked to provide information in multiple domains such as their childhood experience of parenting and their expectations for how they will parent going forward. The Parent Survey also seeks to elicit information about such areas as current lifestyles, coping skills, anger management, and the presence of stressful conditions. Again, as with First Steps, the eligibility determination appears well designed to insure the program serves those it is intended for.

[12] See the previous footnote.

Table 2 provides information about Step by Step annual enrollment from 2015 through 2019. There is a clear downward trend (-29%) over the period, with roughly half the decline occurring in the final year.

Table 2: Step by Step Annual Enrollment, 2015 through 2019

2015	2016	2017	2018	2019	% Change	Median
246	229	211	208	175	-28.9%	211

Note: Data are from the 2019 Start Right Program Data report, p.7. The report is compiled by Children's Hospital of Wisconsin – Community Services staff. The reporting rubric is families served rather than children served.

Given that Step by Step serves children from birth through age five, annual program enrollment numbers contain both new and continuing participants. Most of the entering participants are children born during any given year. According to program staff, the proportion of such children varied in the range of 27% to 35% of total enrollment. While there is no discernable pattern to this variation, the absolute number of such children in 2019 (42) is considerably lower than the values (62 to 72) for the prior four years. This same pattern of can be observed in the data for continuing children. Again, there is no clear trend in the proportion of such children, but the absolute number drops (albeit by about half the number as for new entrants).

Step by Step's resources are limited and the program's preference is that children leave around their third birthday. About six months prior to that date, the program conducts reviews to determine whether Step by Step participation should continue. Program staff, in consultation with the family, decides whether the child/family should be referred to other available services or should continue in the program for up to two more years. Of course there is attrition for other reasons. Families move out of the county, no longer wish to continue, or, for whatever reason, fall out of contact. In point of fact, more attrition occurs for these reasons than by any program determination that the service should end.[13]

EVALUATION DESIGN

As disclosed in the introduction to this report, this evaluation is something less than a comprehensive examination of program operations and outcomes. That is why this report is characterized as "formative." Conclusions offered should be viewed as contingent, waiting for confirmation by some future evaluation utilizing better quality data and the use of the more robust analytical techniques such data will enable.

It should be noted, that while Start Right was very cooperative with this evaluation effort, most contact was with a single designated staff member who liaisoned with others working for Start Right. This appears to have been a consequence of the extra workload and disruption to routine that the Covid 19 pandemic entailed. Still, it's unlikely this had a significant impact on this evaluation, given its limited scope.

[13] According to program records, in both 2018 and 2019, only 28% of attrition happened because service was completed.

Any evaluation should be designed to identify the program's effectiveness. This entails more than establishing that the program had positive outcomes. It requires being able to establish how much of the outcomes can be attributed to the program. Given the methods available to do it, this almost always means an estimate that has some level of uncertainty and is generally better expressed as a range than as a single value. Accomplishing this entails comparison in some form. The so called gold standard for this, random assignment to intervention and control groups, can almost never be used with ongoing public programs such as Start Right. There are other useful, albeit less precise, methods such as identifying formal comparison groups, using statistical controls, and even, for certain purposes, comparisons of program participants to themselves across time. As is discussed later, none of these options could be used for this evaluation, at least in their more robust forms.

Another important component of a program evaluation is to examine whether the program is delivered as intended. In one sense, the relative stability of the First Steps and Step by Step efforts make this task easier as the evaluation does not have to untangle the effects of major changes to the programs. However, an assessment of program implementation is generally better when there is independent collection of evidence through means such as observation, interviews/surveys, and direct access to program records. It is also helpful if the implementation component of the evaluation is performed by someone with expertise in the program's subject matter. This evaluation does not meet these conditions.[14]

So how was this evaluation designed and conducted? Start Right provided the evaluator with aggregated data for multiple outcomes for both First Steps and Step by Step. For the most part, these data were conveyed in the form of brief reports that had been created for Start Right stakeholders, county government, or internal program use. These data, with one exception, did not include subgroups within the programs and provided results as percentages. The numbers from which those percentages were calculated were supplied roughly half the time.[15] Critically, no information was provided about outcome distributions, which precluded the use of standard statistical techniques for determining whether observed differences are likely to be real or the result of random variation. Furthermore, all the data was annualized; there was no way to track outcomes across years, either within each Start Right program component or as those served transitioned from First Steps into Step by Step.

Program staff and this author agreed to limit the evaluation to the years 2015 through 2019 as the aim was to look at recent program performance. Both parties also

[14] This evaluation was conducted with no budget for travel or any other purpose. It is likely that the UniverCity Year Program would have provided some financial support for onsite activities, though the evaluator did not make a request. The evaluator believes that because of his lack of familiarity with prenatal care coordination or home visiting programs multiple visits would have been needed. There was also consideration of the added burden on Start Right staff, especially during the Covid 19 pandemic.

[15] There was limited information for a single year about two subgroups in First Steps. One subgroup consisted of women who entered First Steps well before giving birth. The other was composed of participants who entered just prior to or shortly after giving birth.

agreed not to include the small Stepping Out component in the study. However, it was this author, without explicit agreement from Start Right staff, who decided that there would be no attempt to perform a formal overall assessment of Start Right outcomes. This was because of the data limitations identified in the previous paragraph.

In the absence of a high quality comparison group or the means to utilize statistical controls through regression or related techniques, several surrogates are adopted.[16] The first of these is comparing observed outcomes to the targets that Start Right has set. These targets do not appear arbitrary or self-serving. They are informed by recommendations from expert sources including the federal government's Healthy Persons 2020 project and Step by Step's accreditor, Healthy Families America.[17] The second surrogate is to identify reference groups to which Start Right outcomes can be compared. Some of these references are intended to correspond to general populations of pregnant women or of young children. All things being equal, their outcomes are expected to be better than for those served by Start Right. Others of these are intended to represent populations at high risk of adverse outcomes. Such references suggest what the underlying expectations should be for Start Right's service population in the absence of the program. Wisconsin based reference groups, when available, are preferred to national or multi-states ones. The presumption is that this will better control for a range of policy, cultural, demographic, and socio-economic factors. Taken as a whole, this evaluation approach can be characterized as a weak form of cross-sectional design because, as implemented, it is extremely difficult to assess the meaningfulness of differences in group characteristics and outcomes. This is largely a function of data limitations. A great deal is left to eye-ball tests and back of the envelope calculations. Doing this is to some degree justifiable at the program level where global judgments involving multiple outcomes and values must be made. It is unfortunate to have to proceed in this manner when assessing specific outcomes.

More detailed Information about how the quality of program implementation is assessed is given in the next section of the paper. Much of the information is again from Start Right, but greater confidence is extended to that coming from sources external to Start Right or Marathon County government. The section also includes some information about resource levels and participant satisfaction.

[16] Regression techniques require fairly high numbers of cases, whatever their type. For this evaluation of a single program that would have meant data about individual participants. Start Right quite justifiably could not provide such data. Beyond the work load involved in extracting such data from program records and then removing identifiers, there is no data use agreement in place that would allow transfer of the data to UniverCity Year or the evaluator. It takes considerable effort and time to put such agreements in place. Additionally, there are participant privacy interests and, probably, HIPAA requirements that would need to be addressed.

[17] There is material indicating that First Steps utilizes or explored utilizing target recommendations from the Family Foundations Home Visiting Program.

IMPLEMENTATION QUALITY

As noted in the previous section of this report, the evaluation did not include activities to directly assess service quality and/or the degree to which program services were delivered in a way that is faithful to the chosen service model or approach. However, in the absence of such information, there is no way to be sure that program outcomes can be attributed to the program. Granted, even "perfect" implementation is not sufficient to be certain that a program is responsible for observed outcomes, but satisfactory implementation is surely a necessary condition for making the claim that an intervention led to the observed results.

Generally speaking, claims from program staff about implementation quality cannot be taken at face value without additional collaboration. Standardized reports about both regular program activities and how unusual events were handled can have value as can both solicited and unsolicited input by those using or impacted by program services. However, assessments of implementation quality by external parties using carefully developed protocols and methods provide a firmer basis for assessing implementation quality.

This analysis begins with Step by Step as the evidence from external sources for strong implementation is compelling. Step by Step achieved accreditation from Healthy Families America through a process that requires a detailed self-study and onsite verification that the material submitted is accurate. The accreditation visitors' report was highly complementary in multiple areas, citing particularly excellent performance in areas including, but not limited to, participant retention, goal planning with family members, cultural sensitivity and staff supervision. While there were observed shortcomings in a few areas (the most important was failure to screen a large enough proportion of participants for postpartum depression), these were addressed to Healthy Families America's satisfaction within a month.[18]

Additionally, CSSW's contract with Marathon County requires the submission of multiple status reports and the forwarding to the county of any written complaints from program participants or other stakeholders. The county is also at liberty to inspect program records and observe program activities to insure that the program is operated appropriately. The evaluator has not been provided with evidence of non-compliance or substandard program operations for the Step by Step program.

In the case of First Steps, it is not possible to assert that the program is well implemented with as much confidence. The quandary is the lack of an external assessment of program quality. However, no problems with program delivery have been brought to this author's attention.

First Steps is expected to comply with Wisconsin and national standards and procedures for prenatal care coordination programs that receive Medicaid reimbursement. It addition to promulgating and enforcing these rules and standards, the

[18] Correspondence from Healthy Families America dated May 4, 2021 and June 7, 2021.

state provides training opportunities for PNCC program staff. More generally, the state's efforts are consistent with guidance from the federal Maternal, Infant and Early Childhood Visiting (MIECHV) program.

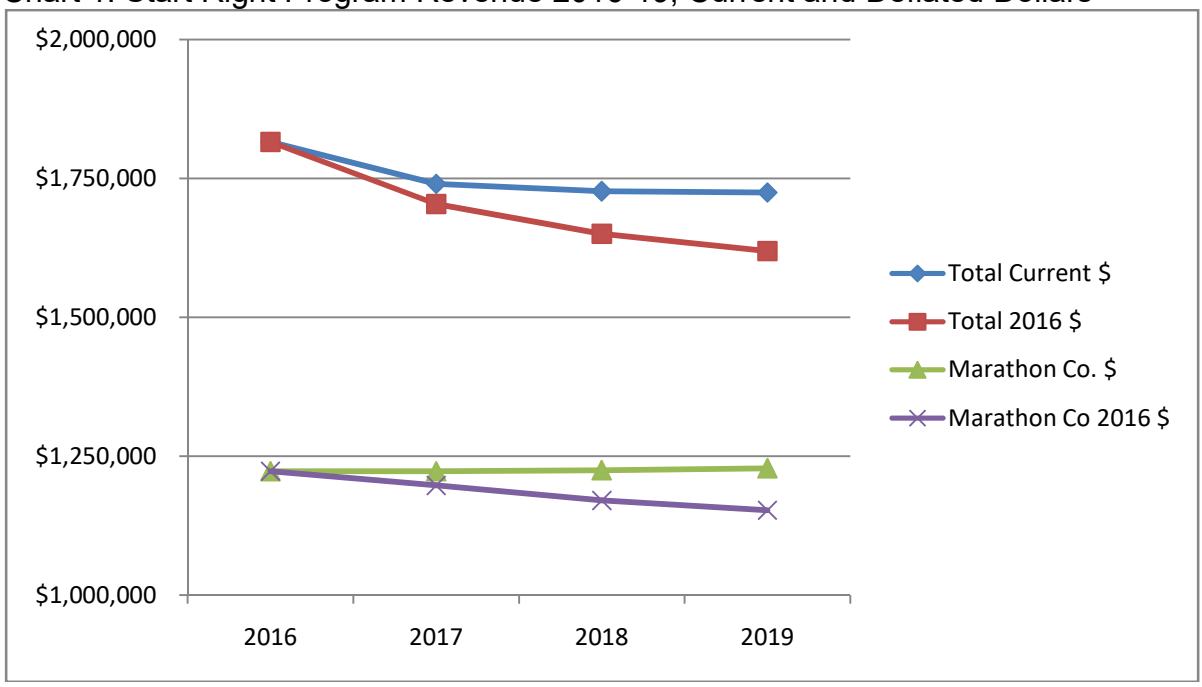
However, Wisconsin Department of Health Services (DHS) has apparently never conducted an audit of First Steps. First Steps does conduct internal audits following DHS protocols with the intent of examining at least 5% of each nurse's case load. In a typical calendar quarter supervisors examine one-third to one-half of recently closed cases. The results of the review are shared with the nurse in person and the meetings are used to correct problems. While this author asked to see examples or summaries of these audits, Start Right reported that no materials were available. Program staff also report that a program supervisor meets at least monthly with each public health nurse to review open cases. When needed these reviews serve as a setting for addressing any issues or deficiencies identified. Finally, First Steps has a process for ensuring at least annual review of its policies and procedures.

Having adequate resources does not insure good program implementation, but it is a precondition. Roughly 70% of Start Right's funding is provided by Marathon County, with that proportion slowly increasing. The rest comes from a collection of private and public sources. Chart 1exhibits two sets of lines for Start Right program revenues for the years 2016 through 2019.[19] The top pair of lines refers to total Start Right revenues. The lower pair captures annual revenue provided by Marathon County. In each pair, the upper line represents revenues in current dollars. The lower line exhibits the corresponding values in constant dollars (i.e. "inflation adjusted"). [20]

[19] 2015 revenues are omitted because of some uncertainty about the accuracy of the data for the First Steps program.

[20] Current dollars values are converted to constant dollars using the CPI-U (consumer price index for urban consumers. 1982/84=100). Constant dollars figures in Chart 1 and the subsequent discussion are expressed in their 2016 values.

Chart 1: Start Right Program Revenue 2016-19, Current and Deflated Dollars



Note: Fiscal data provide by Start Right staff

In current dollars, total program revenue decreases by nearly $91,000 (5.3%) over the four year period. By contrast, Marathon County's contribution grows slightly, about $5,000 or 0.4% during this period. Looking at the same figures in constant dollars tells a more pessimistic story. Overall revenues, that is buying power, declines over $196,000 (12.1%), while Marathon County's contribution is reduced by about $70,000 (6.1%).

Both First Steps and Step by Step experienced reductions in fiscal resources, though not to the same extent. In this analysis, Start Right revenue going to the Marathon County Health Department (MCHD) serves as a proxy for First Steps, revenue to Children's Social Services of Wisconsin (CSSW) as a proxy for Step by Step. In the 2016 through 2019 period, the revenue for MCHD's Start Right activities declines by over $52,000 or 8.3%, driven by the loss of non-county revenues.[21] However, when looked at in constant dollars, revenues are reduced by 15.4%. Even the buying power of the county's contribution was 5.5% less in 2019 than in 2016.

In both absolute amount and by percentage, the revenue decline for the larger CSSW component was considerably less than that for MCHD.[22] CSSW resources were over $38,000 (3.5%) less in 2019 than in 2016. As the county contribution did not change over this period, all the current dollar loss is assignable to other funders. The reduction in constant dollars was of course considerably greater. By 2019, CSSW's inflation adjusted revenue was $105,000 (10.3%) less than in 2016.

[21] Marathon County funding to MCHD grew by 1% in current dollars.

[22] CSSW gets a larger share of Start Right total revenues than MCHD. In 2016 the CSSW share was about 62% of the total. In 2019 CSSW share was slightly larger at 63%.

This author is in no position to directly assess the impact these reductions had on Start Right program activities. Yet as a general proposition, most social service and education programs spend most of their funding on personnel costs. Reductions in this area can affect the quality of services, the range of services provided and the number of persons who can be served. It is reasonable to deduce that budget reductions were a major factor for why Start Right ended one of its program offerings and deemphasized another. Moreover, enrollment has certainly fallen in both First Steps and Step by Step. Yet, counter intuitively, in percentage terms it was the Step by Step program that experienced a much greater decline (see Tables 1 and 2).

Finally, feedback from program participants can have value for assessing implementation quality, though that value is conditioned on what questions are asked, the methods used to collect feedback, and on the degree of trust that participants have that they or program staff will not suffer from providing "negative" input. Both First Steps and Step by Step gather some participant satisfaction information using survey instruments. It does not appear that either program collected more detailed and nuanced information using methods such as focus groups or one-on-one interviews during the evaluation period. Similarly, no open-ended questions about specific topics were used in the surveys.

First Steps surveys its participants on a semi-annual basis. Since the second half of 2018 this has been on a mail out basis. Prior to that it appears surveys were administered on a face to face basis.[23] The same questions were asked throughout the 2015-19 evaluation period. Irrespective of administration method, results were overwhelmingly positive, with literally only two negative responses to any item over five years. Some of the questions are quite focused. For example respondents were asked whether as a result of their contact with a public health nurse they knew what actions they needed to take in order to have a healthy baby. Another item asked whether the "…nurse listens to what I think is important for me and by baby." Respondents were given the option of providing open-ended comments at the end of the survey and a surprisingly high number did so. Most comments were highly complementary to the program and its staff, a minority offered suggestions for improvements in operations.

Step by Step asks participants to rate both overall program satisfaction and performance on a quarterly basis.[24] While the length of the survey was shortened in 2017, a majority of the items had been asked throughout the evaluation period. By contrast to the First Steps survey, it appears that the survey did not provide a way for respondents to provide open-ended feedback. Responses were highly positive, typically 95% or above.[25] For example, when participants are asked whether Step by Step has

[23] The summaries of survey results that First Steps sent are clearly labeled as "face to face." There is no information as to whether the survey was administered by the nurse who worked with the participant or someone else. Face to face administration, especially when carried out by program staff has considerable potential to distort results. Nevertheless, as reported later in this paragraph, that does not seem to have happened.

[24] No information was provided as to how surveys were distributed.

[25] While the survey is administered quarterly, this analysis is restricted to results from the second and fourth quarter of each year.

been helpful to them, their child or their families, positive responses ("definitely" or "for the most part") never fall under 96% on any survey. Similarly, when asked to rate performance on a zero to ten point scale in reference to a hypothetical "best" agency, at minimum 93% of respondents rated Step by Step eight or higher. Feedback on performance in specific domains is also highly positive. 97% to 100% report that Step by Step provided services in ways that "…showed respect and understanding of my family culture and unique situation." The only item where positive responses frequently fell below 95% is whether respondents reported they had gotten a prompt answer to an initial request for services. Even here the worse case was an 88% positive rating.

DEMOGRAPHIC INFORMATION

Start Right provided limited demographic information for both First Steps and Step by Step. These data are provided in aggregate form on a calendar year basis for each programmatic component. The data are not in a form that can be used to compare outcomes across subgroups. .

Nonetheless, the demographic information has value. It can be used to assess how similar a Start Right client population is on these variables to one or more reference populations of interest. For purposes of this report, a pertinent type of reference population would be one where the typical individual is more advantaged than the typical Start Right client in resources or in the presence of conditions associated with good pregnancy or early childhood outcomes. An example of this type of reference would be the universe of all women in Wisconsin who gave birth in a relevant time span. A second example would be the full set of Wisconsin children from birth through age five; i.e., the age group served by Step to Step. Similarly, the demographic data can also be used to identify reference groups that appear to face an analogous level of disadvantage or stress to those experienced by Start Right participants.

In circumstances when Start Right outcomes at least approach those of a more advantageously situated reference group, one could hypothesize that it is to a substantial degree a consequence of program effectiveness. A similar hypothesis could be framed when Start Right outcomes exceed those of a similarly situated reference group. Nonetheless, given limitations of data and, thus, method, it will not be possible to estimate how much of an observed outcome can be attributed to Start Right's efforts nor even whether the difference is "real" in the sense of being statistically significant.[26]

Before examining tables describing the limited demographic information, it is important to understand that the demographic information for First Steps and Step by Step have different foci. The demographic information about First Steps captures selected characteristics of the pregnant women and new mothers who are that program's direct clients. The information about Step by Step focuses on characteristics of the children served and of the households in which they live.

[26] As discussed in the Evaluation Design section, this cannot be done unless there is better information about the distribution of the relevant outcome than is currently available from Start Right.

Table 3 presents information for every demographic variable Start Right provided for First Steps, except a woman's primary spoken language. Leaving aside assignment of causality, belonging to a minority group, not being married, and/or having low levels of educational attainment have all been associated with poorer pregnancy outcomes. The most salient trend observed in the Table 3 data is a gradual increase in the share of minority clients, motivated largely by an increase in the proportion of those of Hispanic/Latino heritage.

Table 3: Selected Characteristics of First Steps Clients by Percentage, 2015-19

	2015	2016	2017	2018	2019	Median
Race						
Black	8.2	4.1	3.4	7.4	5.3	5.3
White	73.2	73.6	70.8	69.5	67.1	70.8
Asian	17.5	21.5	25.8	20.0	25.0	21.5
Other	1.0	0.8	0.0	3.2	2.6	1.0
Ethnicity						
Hispanic /Latino	7.2	9.1	6.5	10.7	11.9	9.1
Marital Status						
Married	35.1	35.8	35.2	36.3	37.0	35.8
Education						
<High School Diploma	26.4	9.9	17.4	22.7	18.3	18.3
At Least High School, but no BA	69.2	79.3	74.4	60.8	76.0	74.4
Bachelor or Graduate Degree	4.4	10.8	8.2	16.5	5.6	8.2

Note: Categories have been re-coded from those provided by Start Right to support comparison with information from other sources
Note: Percentages do not include missing cases
Note: The summed medians for a multiple category variable will not necessary equal 100%

Table 4 exhibits data from every demographic category Start Right provided for those utilizing Step by Step. By contrast to the First Steps data, there is some information about poverty and income distribution, two factors associated with inferior perinatal and early childhood outcomes. These economic metrics also explain some (but not all) of the negative association between minority identification and/or educational attainment and desired pregnancy and early childhood outcomes.

Table 4: Selected Characteristics of Step by Step Clients/Households by Percentage, 2015-19

	2015	2016	2017	2018	2019	Median
Race						
Black	2.3	1.9	3.1	4.7	4.9	3.1
White	59.9	61.9	61.0	62.5	65.9	61.9
Asian	15.8	16.7	15.4	14.6	12.8	15.4
Mixed/Other	22.1	19.6	20.5	18.2	16.5	19.6
Ethnicity						
Hispanic /Latino	19.9	21.4	21.4	20.9	17.9	20.9
Federal Poverty Level						
Below 100% FPL	83.4	78.9	77.5	75.0	75.7	77.5
100% to 200% FPL	13.1	15.0	16.3	19.4	17.9	16.3
>200%	3.6	6.0	6.3	5.6	6.4	6.0
Household Income						
Under $10K	25.9	24.6	23.3	22.6	20.4	23.3
$10K to $24,999	42.7	41.0	39.0	38.9	36.4	39.0
$25K to $44,999	21.1	24.6	25.0	30.5	32.1	25.0
$45K or >	10.3	9.8	12.8	7.9	11.1	10.3

Note: Categories have been re-coded from those provided by Start Right to support comparison with information from other sources
Note: Percentages do not include missing cases
Note: The Poverty and Income variables have high proportions of missing cases. The annual proportion for poverty varies from 13,5% to 27.5% of cases. The proportion for income varies in the range of 7.4% to 20.1%.
Note: The summed medians for a multiple category variable will not necessary equal 100%

Table 5 includes median values for selected demographic variables for the Start Right program components and data drawn from other sources for relevant Wisconsin populations. Material from Kids Count (Annie E. Casey Foundation), the Wisconsin Annual Birth and Infant Minority Report, and the American Community Survey provide information about selected characteristics for women who gave birth, for young children in the approximate age range of Step by Step participants, and for the households where such children reside in Wisconsin.[27] The two columns of data from the Wisconsin

[27] The author decided to utilize Wisconsin rather than national data to represent the characteristics of relevant "general populations" to reduce the likely contextual, especially policy, differences with Marathon County. Marathon County data is not utilized for this purpose because of its relative paucity and the probability that Start Right clients constitute a meaningfully large proportion of the totals.

Pregnancy Risk Assessment Monitoring Survey (PRAMS) are used to show information for two subgroups of Wisconsin women who experience conditions comparable, but not precisely equivalent, to those making one eligible for a Start Right program. In appraising the material in Table 5, one should concentrate on the relative magnitudes between the Step Right programs' figures and those from other sources, rather than on the exact values presented. Data definitions and the methods of collecting the information are not fully comparable.

Table 5: Comparison of Selected Demographic Characteristics between Start Right Programs and Selected Reference Groups by Percentage

	First Steps	Step by Step	Kids Count WI 2019[28]	WI Birth & Infant Mortality Report 2017[29]	ACS 2019[30]	PRAMS, "high #" of stressors[31],[32]	PRAMS, "very high #" of stressors[33]
Marital Status							
Yes	35.8		62	62.2			
Race							
Black	5.3	3.1		10.5			
White	70.8	61.9		71.2			
Asian	21.5	15.4		4.5			
Mixed/Other	1.0	19.6		4.0			
Ethnicity							
Hispanic	9.1	20.9		9.8			

[28] The Kids Count data is accessed from https://datacenter.kidscount.org/dat#wi. The focus of the data set is on children, not mothers or parents. The poverty figure is for children up through age five.

[29] The Annual Birth and Infant Mortality Report, 2017 (P-01161-19) is a publication of the Wisconsin Department of Health Services, Division of Public Health, Office of Health Informatics. It was released in June 2019. The focus of the data presented (marital status, race/ethnicity, and education) is on mothers.

[30] The American Community Survey (ACS) is a product of the U.S. Census Bureau. The data used is accessed from http://data.census.gov/cedsci/. The poverty variable captures the proportion of households with children under five living in poverty, not the proportion of children under five in poverty. That variable is somewhat higher at 16.5%.

[31] PRAMS stands for the Wisconsin Pregnancy Risk Assessment Monitoring Survey. PRAMS is housed in the Wisconsin Department of Health Services and is a cooperative effort with the Centers for Disease Control and Prevention. PRAMS data is collected through a survey of women who have recently given birth. Responses are weighted by CDC so that results are representative of the state's relevant population. Readers are alerted to the fact that results are estimates, the quality of which can be impacted by missing cases. The PRAMS data used in this report were prepared by Mireille Perzan, the PRAMS Project Director at Wisconsin DHS. Data used were from 2016-19 surveys.

[32] One PRAMS variable is the number of stressors the respondent experiences. "High #" refers to reporting at least 3 stressors and is meant to represent a population that faces greater challenges to having a successful pregnancy and post-natal experience than women in the general population.

[33] "Very High #" refers to reporting at least 6 stressors and is meant to represent a population that faces even greater challenges than the previously discussed "High #" stressor.

Table 5 Continued:

	First Steps	Step by Step	Kids Count WI 2019	WI Birth & Infant Mortality Report 2017	ACS 2019	PRAMS, "high #" of stressors	PRAMS, "very high #" of stressors
Poverty							
Below 100%		77.5	15		12.5	57.6	76.8
100% to 150%		16.3				26.0	17.6
>200%		6.0				16.4	5.5
Income							
Under $10K		23.3			4.7		
$10K to $24,999		39.0			13.2		
$25K to $44,999		25.0					
$45K or >		10.3					
Education							
<High School Diploma	18.3			10.4		14.2	14.3
At Least High School, but no BA	74.4			54.0		70.9	78.0
Bachelor or Graduate Degree	8.2			35.1		14.9	7.7

Note: Values for First Steps and Step by Step are medians for 2015-19 period
Note: Percentages do not include missing cases
Note: Race variable data from the Wisconsin Birth and Infant Mortality Report totals 90.2% because it does not include cases identified as "Hispanic"

In brief, the results for the "general" populations, as expected, are better, in the sense of implying lower risk of adverse outcomes than for the Start Right programs. Roughly 25% more women are married and educational attainment is markedly higher. Poverty rates appear to be only about a fifth or sixth of that associated with Start Right. The proportion of children living in lower income households is much lower. For example, the ACS reports the proportion of young Wisconsin children residing in households with less than $25,000 annual income as just under 18%. The comparable figure for Step by Step is more than three times higher at 62%. These data also show that the proportion of clients identified as "minority" is considerably higher than for the general Wisconsin groups. For example, in Table 5 the proportions of First Steps and Step by Step participants identified as "white" are, respectively, 70.8% and 61.9%.

By contrast the two PRAMS subgroups (those reporting experiencing “high” and “very high” numbers of stressor conditions) more closely resemble the Start Right groups on available indicators. In particular, the more severely impacted “very high” number of stressor subgroup exhibits a close match with the First Steps data. Poverty distributions are essentially identical. The poverty rate for Step by Step is 77.5%. The proportion of households with incomes in the range from the Federal Poverty Level (FPL) to twice FPL is 16.3%. The comparable figures for the PRAMS “very high” stressor subgroup are 76.8% and 17.6%.[34] The distributions for educational attainment for First Steps participants and the “very high” stressor group are also reasonably similar, but with First Steps participants having somewhat lower attainment. For example, 18.3% of First Steps participants do not have at least a high school education compared to 14.3% of the more severely impacted PRAMS subgroup. These results support the case that various PRAMS subgroups can be used as statewide references for those in a disadvantageous position comparable to that of Start Right participants. The data also serve, at least indirectly, to support the case that Start Right is serving the “high risk” individuals and families it is intended to.

OUTCOMES

Start Right reports program outcomes on an annual basis. For the most part, reported outcomes are those that may be viewed as immediate or short term consequences of project activities. For reasons elucidated in the Evaluation Design section, it is not possible to report meaningful data for intended longer term consequences specified in Start Right’s logic model such as school readiness or the reduction of juvenile delinquency. As previously noted, the data made available for this report precludes following cohorts of Start Right participants across time. Restated, available data does not allow one to assess the developmental impact of the Start Right program or its major components. Similarly, though most children, mothers and families participating in Step by Step had previously participated in First Steps, in this author’s opinion there is no viable method to combine the First Steps and Step by Step data to report overall Start Right outcomes on even an annual basis.

Consequently, First Steps and Step by Step outcomes are reported separately and there is no description of overall Start Right outcomes. Outcome tables provide the annual values for 2015 through 2019. Additionally these tables provide the median annual value for the period and, when Start Right has defined an attainment goal, that value as well.[35] The author asks readers to be extremely cautious in looking for patterns of improvement or deterioration within the five year evaluation period. First, the numbers of annual cases are fairly small, allowing for a measure of short-term variability. Second, Start Right is a mature program which did not make large-scale changes to its program

[34] However, comparable does not mean the precisely same. PRAMS data focus on a sample of new mothers; Step by Step data on young children and their households. Moreover, PRAMS data are estimated from survey results

[35] The median is literally the middle value of the reported data, in this case the maximum of five reporting years. It is not the same as an arithmetical average (or mean).

components during the evaluation period. Though not impossible, trends are unlikely to be motivated by major substantive changes to the program.[36]

It must be noted that First Steps generally identifies the number of cases where data are missing or unknown, while Step by Step does not. Percentages for First Steps outcomes are calculated excluding missing cases. Additionally, in tables where at least one annual value has ten percent or more missing cases, that fact is identified. Though perhaps this might be seen as a technical issue, it is meaningful insofar as it increases the likelihood that Step by Step outcomes will be slightly overestimated.

When Start Right has specified a target attainment level for one of its goals, this report will assess whether the goal has been reached by comparing the median value to the target. In addition to identifying attainment, this report will distinguish near attainment, which will be defined as a value no more than 5 percentage points below the target, from greater levels of non-attainment.[37] Finally, because the median value, in isolation, will not help one identify a performance trend, readers are sometimes given a heads-up that they should be cautious about this author's assessment of whether a target has (or has not) been achieved.

Not all available outcomes measures are reported. The choice of what to report is guided mainly by recommendations from program staff, though the author has added several more. The author has adopted the convention that Start Right uses in many of its reports for organizing data about specific outcomes into broader outcome areas (e.g. "children will be healthy").

In many cases, tables will be followed by contextual data from other sources.[38] In some cases this will be population data that will provide outcome information for a general population of new mothers and/or very young children, typically drawn from Wisconsin. When such data are not obtained, sometimes national data will be substituted and/or values for somewhat broader populations than new mothers or children of the ages served by Start Right. The presumption is that broader populations of these types will have smaller proportions of children, mothers and families experiencing comparable stressors to those experienced by Start Right participants. First Steps and Step by Step outcomes close to those of this kind of population would be suggestive of strong program performance.

---

[36] However, as discussed in an earlier section of this report, Implementation Quality, there has been enough reduction in program budgets to consider the possibility that they were large enough to motivate outcome trends,

[37] This standard is admittedly imprecise. Nonetheless, this author thinks it important to identify a performance range where program performance may be satisfactory and where chance itself may have been a factor in non-attainment. Of course factors outside a program's immediate control (including decreases in resources) can result in failure to achieve outcome targets. However, lacking adequate information, this report will refrain from making firm judgments that external impediments are responsible for not achieving a performance target.

[38] The contextual data used is not always collected or defined in ways fully equivalent to the data provided by Start Right. For example, some of the contextual data is collected by survey (generally self-report) or derived from a sample (thus ultimately an estimate, albeit one arrived at using proven statistical methods). Putatively equivalent outcomes may be conceptualized in different ways. Even when outcomes reported from two or more different sources are conceptualized the same way, data may still be reported using different ranges than Start Right uses.

Similarly, when available, data will be presented for subgroups in Wisconsin of mothers, children or families that experience levels of stressor conditions similar to those of Start Right participants or have characteristics suggestive of that.[39] While it is likely that some members of these subgroups have participated in a prenatal care coordination and/or home visiting program with goals similar to Start Right, it is also likely that the proportion in each subgroup is modest enough not to dominate the results.[40] Thus, First Steps and Step by Step outcomes better than those of the "high stress" subgroups would be suggestive of strong program performance.

Outcomes: First Steps

First Steps organizes its annual outcomes data into four general areas corresponding to its program goals. These areas are as follows:

(1) Children will be healthy
(2) Children will be safe in their homes
(3) Children will experience nurturing relationships with their parents
(4) Families will be knowledgeable about key community resources[41]

Nine of the eighteen outcomes described below have targets. The median outcome meets or exceeds the target level in six (67%) of the cases. Of the three targets not achieved, one (11%) can be characterized as nearly attained, while two (22%) can be characterized as falling well short of attainment. Additionally, based on

---

[39] Again, when Wisconsin based sub-group data are not available, available national level (or in one case, multi-state) data are used.

[40] While the actual proportions are unknown, there are several reasons to believe that Wisconsin statewide participation rates in programs similar to Start Right are modest enough to support useful comparisons between outcomes for Start Right components and those for subgroups that have would appear to have many individuals who would meet Start Right program eligibility requirements. Information sourced from the U.S. Health Resources and Services Administration (HRSA) indicate that slightly less than half of Wisconsin counties have Maternal, Infant, and Early Childhood Visiting (MIECHV) programs, though most of the more populous counties do. See *Wisconsin's MIECHV Program FY 2019*. Health Resources and Services Administration, U.S. Department of Health and Human Services, 2019. Accessed at https://mchb.hrsa.gov/sites/default/files/mchb/MaternalChildHealthInitiatives/HomeVisiting/pdf/wi.pdf. Additionally, it should be noted that among MIECHV programs Start Right is highly unusual in its commitment to "universal" access based on the presence of stressors, irrespective of eligibility for means tested programs.

Data from CSSW produced reports show that, despite this commitment, the take-up rate is far below 100 percent. For example, in its 2019 Start Right Program Data Report, CSSW reports there were 1491 births in Marathon County. Of these, 102 had a primary stressor that would ensure program eligibility. Still, for whatever reason, only 40 (39%) of these cases accepted First Steps services. Unfortunately, the provided data does not provide information about the number of newborns that would have qualified for Step by Step because of experiencing multiple secondary stressors (without any primary stressor). Still it appears this number must be quite low as only 42 children born in 2019 entered Step by Step that year. However, it would be wrong to conclude that those eligible strictly due to having multiple secondary stressors make up less than 5% of new participants. Some born late in the year would have entered Step by Step the following year either from First Steps or de novo. Indeed, some may enter Step by Step after their first birthday.

[41] Start Right staff did not indicate wanting any of the available outcome indicators for this area included in this report. Additionally this author feels that the available indicators do not do an adequate job of measuring parental knowledge about community resources.

comparisons to various reference groups, the author has reached a preliminary conclusion that First Steps program outcomes on most of these metrics are better than would be expected based on participants' demographic characteristics and/or of the high level of risk factors they experience.

Nonetheless, in most cases where First Steps does not achieve its outcome target, comparison to the outcomes levels exhibited by reference populations suggest that First Steps outcomes are often above expected levels. Much the same can be said in regard to outcomes that lack explicit target levels. While such evidence may not be as convincing as that signifying goal attainment, in this author's view it suggests that First Steps is performing well. To be sure implementing a proven evidence based model suggests a strong likelihood of achieving good results, but it is always better to have empirical evidence.

Before examining each of the specific outcome levels for First Steps, it is important to mention an important outcome that, being baked into program operations, seems to escape explicit notice. A U.S. Department of Health and Human Services effort, Healthy People 2030, asserts that far too many pregnant women do not receive adequate prenatal care. It has identified an empirical baseline level for the proportion of women who get adequate care (76.4%) and recommends that the nation reach the 80.5% level by the end of the current decade.[42] First Steps has accomplished this not for just four-fifths but for essentially all its active participants who enter the program appreciably before their child's birth.

Outcome Area 1: Children will be healthy

When the gestation period is 37 weeks or less there is a higher risk the child will experience health problems and developmental delays. The shorter the gestational period is the higher the risk of serious problems including infant mortality. One of the main rationales for prenatal care coordination is to reduce the likelihood of such births.

Table 6a provides information about the proportion of infants born prior to 37 weeks to First Steps participants. The median annual value is 9.4%. While there is no identified attainment goal, this value meets the target recommended for the general population by Healthy People 2030.[43]

[42] Healthy People 2030 is an effort coordinated through the Office of Disease Prevention and Health Promotion at the U.S. Department of Health and Human Services to identify indicators of public health, measure current attainment, and recommend appropriate targets. Information about Healthy People 2030 can be accessed online at https://health.gov/healthypeople/objectives-and-data. In particular see material for objective MICH-08. According to Start Right staff, material from the earlier Healthy People 2020 was used to inform the choice of Start Right program targets.

[43] See the previous footnote.

Table 6a: Gestational Age at Birth, Percentage Born Prior to 37 Weeks, First Steps 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
9.4	12.4	2.2	8.7	13.1	**9.4**	**NA**

Table 6b compares the First Steps median to values for various state level groups. The value taken from the Wisconsin Birth and Infant Mortality Report, 2017 describes the entire population of women giving birth in the state.[44] The value was drawn from Wisconsin vital records and should be extremely accurate. The remaining columns use estimates derived from the aforementioned custom data draw from the Wisconsin Pregnancy Risk Assessment Monitoring System (PRAMS) using data from surveys administered between 2016 and 2019.[45] To report PRAMS data, the author decided to use variables that indicate the presence of risk factors that imply (but don't guaranty) eligibility for First Steps or Step by Step.

The PRAMS stressors variable reports the number of affirmative answers respondents give to the presence of 14 items indicating significant life stresses. Items measure the occurrence of conditions such as illness, financial problems, poor interpersonal relations, divorce, homelessness, incarceration and drug use by household members. While the items are different from those constituting what Step by Step terms secondary stressors or risk factors, the two rubrics share an idea: factors that by themselves are not likely to seriously decrease outcomes are much more likely to do so in tandem. The low stressor group is composed of those who reported no more than three stressors. It can be conceptualized as a subgroup that experienced fewer disadvantageous conditions. In point of fact, as it includes roughly 70% of the respondents, its outcomes are typically only marginally better than those for all PRAMS respondents.

By contrast, the other two PRAMS subgroups should be viewed as experiencing more disadvantage and thus a reference of sorts for whether a Start Right program component is motivating better outcomes than expected for those in a high risk group. The high stressor group is composed of respondents who reported three or more stressors. Those in the very high stressor group reported at least six stressors. The author thinks, given the demographic information presented in Table 5, the very high stressor group is much more similar to those served by First Steps or Step by Step. The main reason for reporting outcomes for the high stressors subgroup is the small size of the very high stressor subgroup.[46]

---

[44] *Annual Wisconsin Birth and Infant Mortality Report, 2017*. Wisconsin Department of Health Services, Division of Public Health. Office of Health Informatics, June 2019, p. 11. Accessed at https://www.dhs.wisconsin.gov/publications/p01161-19.pdf

[45] Multiple factors can impact how closely survey results match the "true" values for the complete group from which respondents are drawn; an issue of particular concern is missing responses, especially for relatively small subgroups. The number of missing responses for crosstabulations using the AODA variable is large. Nevertheless, the standard errors for these crosstabulations are small enough to justify their use.

[46] Those included in the very high stressor subgroup make up less than 10% of the sample. Given the smaller N, the precision of the outcome estimate is more likely suffer.

Subgroups composed of those answering "yes" to items indicating, respectively, having a AODA problem, suffering violence or abuse, or experiencing depression or other mental health issue during pregnancy or in the year prior to becoming pregnant represent groups that are comparable to those labeled as primary risk factors by both Start Right programs.[47] Their inclusion is meant to serve as a reference for those with a very severe risk for poor outcomes.

Table 6b: Gestational Age at Birth, Percentage Born Prior to 37 Weeks, First Steps Median and Various WI Statewide Values

First Steps Median	WI Birth & Infant Mortality Report	PRAMS Low # Stressors	PRAMS High # Stressors	PRAMS Very High # Stressors	PRAMS AODA = Yes	PRAMS Abuse = Yes	PRAMS Depression = Yes
9.4	9.6	9.7	12.8	13.9	12.5	11.3	12.8

The data in Table 6b suggest that that First Steps is achieving good results in this area. The percentage of early births is comparable to that for the overall population and considerably less than for the reference groups composed of women experiencing various kinds of disadvantage.

First Steps aims to have its participants stop or at least reduce their tobacco use during pregnancy. It has adopted a goal attainment target of 90%. The median, at 90.0% just meets the target, with the values for 2018 and 2019 exceeding the goal. Nonetheless, this is an outcome for which expectations seem to be increasing. For instance, Healthy People 2030 is recommending that the target be raised to 95.7%.

Table 7: Percentage of Women Who Smoked Who Stopped or Reduced Tobacco Use, First Steps 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
81.0	90.0	81.8	92.7	93.1	**90.0**	**90.0**

Table 8 exhibits data for the proportion of women who stopped alcohol use during pregnancy. The target level is 90%. The median exceeds the target level by 6.9 percentage points. The annual values also exceed the target in four of the five years. Nonetheless, the annual values have declined since 2017 and the 2019 result is 1.5 percentage points below the goal. It remains to be seen whether this is an anomaly or indicative of an undesirable trend.

Table 8: Percentage of Women Who Drank Who Stopped Alcohol Use, First Steps 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
97.2	97.8	96.9	90.6	88.5	**96.9**	**90.0**

[47] Wisconsin PRAMS re-coded these variables into a dichotomous form. If this had not been done the number of cases in some cells would have been small enough to require suppression. The crosstabulation would then have been rendered unusable.

Interestingly, Healthy People 2030 reports that for 2017-18, 89.3% present of pregnant women who used alcohol abstain from it during pregnancy. This figure for all pregnant women (albeit for the U.S. not Wisconsin) suggests that First Steps has performed fairly well in this area

Step Right strongly encourages participation in the WIC program as good nutrition will support desired outcomes for both woman and child during pregnancy and beyond. Though First Steps has not established an attainment target for this goal, the proportion of eligible women enrolled in WIC appears high. As seen in Table 9, the median is 96.4%; the lowest annual value is more than 93%.

Table 9: Percentage of Eligible Women Enrolled in WIC, First Steps 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
96.4	94.4	96.5	98.9	93.3	**96.4**	**NA**

This proportion seems impressive, but is there a way to put it into context? In 2016, 30% of pregnant women in Wisconsin received WIC benefits.[48] However, only individuals with household incomes no higher than 185% the Federal Poverty Level (FPL) can be eligible. While no value was located as to the proportion of Wisconsin pregnant women meeting the 185% FPL eligibility requirement that were enrolled in WIC, the PRAMS has information about the proportion of pregnant women in WIC who were either Medicaid eligible or low income. 59% of those in Medicaid were enrolled. Of those with incomes below FPL 62% were enrolled and of those with incomes between FPL and twice FPL about 37%.[49]

In the absence of direct information about the proportion of pregnant women in households meeting the 185% FPL criterion in Wisconsin, an estimate is derived using American Community Survey data. Given the proportion of Wisconsin residents that live in households with incomes at or below the 185% of FPL threshold, pro-rating the 30% rate to this population implies that about 70% of those meeting this eligibility criterion would be getting WIC benefits. In point of fact, it is likely that more than 23% of pregnant women live in households below 185% FPL and, thus the 70% is a conservative estimate. Still the data suggest good program performance.

In Table 10 attention is turned from First Steps mothers to their babies. The median value of 97.5% is well above the target of 85%, as are all the annual values. Additionally, there is evidence, though for the U.S. as a whole rather than Wisconsin, that suggests that First Steps has been unusually effective in encouraging the enrollment of eligible infants into WIC. Based on the data from the 2008 Survey of Income and Program Participation panel (SIPP), researchers found that the proportion

[48] Driscoll, Anne K. and Osterman, Michelle, J.K. *Maternal Characteristics of Prenatal WIC Receipt in the United States, 2016.* NCHS Data Brief #298. National Center for Health Statistics, U.S. Department of Health and Human Services, January 2018, p. 1. Accessed at https://www.cdc.gov/nchs/products/databriefs/db298.htm

[49] *Wisconsin PRAMS 2016-2017 Surveillance Report*. Division of Public Health, Wisconsin Department of Health Services, October 2019, auxiliary table 13.0. Accessed at https://www.dhs.wisconsin.gov/publications/p02500.pdf.

of eligible infants enrolled in WIC varied in a 65% to 70% range over the three years their families were followed.[50]

Table 10: Percentage of Eligible Infants Enrolled in WIC, First Steps 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
97.5	97.0	96.2	98.9	98.5	**97.5**	**85.0**

Note: Percentages exclude cases with unknown status. Maximum value of unknown status = 11.9%; median value = 8.0%.

Breastfeeding is widely viewed as a practice associated with good infant health and development. The median value exhibited in Table 11a shows that about 70% of First Steps mothers initiate breastfeeding or the use of pumped breast milk. There is some year to year variation, but no clear indicator of a trend. The program does not specify a target level.

Table 11a: Percentage of Women Who Initiated Breastfeeding or Pumped EBM at All, First Steps 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
68.0	74.4	69.9	78.6	69.0	**69.9**	**NA**

The data presented in Table 11b indicate that about a ten percentage point smaller proportion of First Steps participants initiate breastfeeding than either the general population of new mothers (i.e. the CDC value) or the various PRAMS groups that experience greater disadvantage. In all these cases the figures are consistently 80% or higher. The author is not aware of the possible reason(s) for the discrepancy between the behavior of First Steps participants and those of the other Wisconsin groups looked at.

Table 11b: Percentage of Women Who Initiated Breastfeeding or Pumped EBM at All, First Steps Median and Various WI Statewide Values

First Steps Median	CDC[51] 2017	PRAMS Low # Stressors	PRAMS High # Stressors	PRAMS Very High # Stressors	PRAMS AODA = Yes	PRAMS Abuse = Yes	PRAMS Depression = Yes
69.9	82	84.3	80.9	80.8	80.0	81.0	84.0

The benefits from breastfeeding are to a large degree associated with the duration of breastfeeding. First Steps lacks information about the proportion of its participants that continue to breastfeed periods beyond eight weeks. Table 11c provides

[50] Jackson, Margot and Schwartz, Gabriel, "Is WIC Reaching Those In Need? Children's Participation in Nutritional Policy during the Great Recession" IRP Discussion Paper No. 1423-14, Institute for Research on Poverty, University of Wisconsin – Madison, January 2014, p. 11.

[51] The data value is estimated from a graph on the Centers for Disease Control and Prevention, U.S. Department of Health and Human Services website Accessed from https://nccd.cdc.gov/dnpao_dtm/rdPage.aspx?rdReport=DNPAO_DTM.

information about the percentages of women providing breast milk to their babies four weeks after their birth. The median value is 51.5%, a considerable but not unexpected drop from the initial rate. Table 11d exhibits data for this metric at eight weeks subsequent to birth. The median value at 32.3% again exhibits a steep downward trend. Given that First Steps does not specify targets for either four nor eight weeks, is there data that can contextualize these program outcomes?

Table 11c: Percentage of Women Who Breastfed or Pumped at 4 Weeks Postpartum, First Steps 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
51.5	57.0	45.2	55.3	44.0	**51.5**	**NA**

Note: Maximum value of unknown status = 10.8%; median value = 7.8%.

Table 11d: Percentage of Women Who Breastfed or Pumped at 8 Weeks Postpartum

2015	2016	2017	2018	2019	**Median**	**Goal**
27.8	41.3	32.3	35.0	32.1	**32.3**	**NA**

Note: Maximum annual value of unknown status = 16.7%; median value = 15.1%.

Material on the CDC website indicates that, nationally, an estimated 57.7% women were breastfeeding four weeks out from birth. The percentage among those enrolled in Medicaid during their pregnancies (i.e., a group that can be viewed as experiencing more disadvantage) was lower at 45.9%, In reference to these numbers; First Steps outcomes appear fairly strong. A PRAMS report about Wisconsin reports that the proportion of women who breastfed to at least eight weeks postpartum increased from 62% to 69% over the years 2009 to 2017.[52] Against this reference, the eight weeks postpartum outcomes for First Steps appear relatively weak.

A seemingly high percentage of infants served through First Steps receive well-child exams. The median value over the evaluation period is 90.3% with the annual value never falling below 85%. This author did not find Wisconsin values for either all infants or those in disadvantageous situations. However, a study performed by Mathematica Policy Research using data from nine states found that 84% of children enrolled in Medicaid received well-child exams.[53] Given that the median value for First Steps (a program with a very high Medicaid participation rate) is more than six percentage points higher, there is reason to affirm that First Steps' performance in this area is better than might be expected. This conclusion must be tempered by the fact that the Mathematica data is from 2008 and the sample used may not be representative of either Wisconsin or the U.S.

[52] *Wisconsin PRAMS 2016-2017 Surveillance Report*. Division of Public Health, Wisconsin Department of Health Services, October 2019, p. 19. Accessed at https://www.dhs.wisconsin.gov/publications/p02500.pdf.

[53] Bouchery, Ellen. *Utilization of Well-Child Care among Medicaid-Enrolled Children*. Medicaid Policy Brief 10. Mathematica Policy Research, October 2012, p.4. Accessed at https://www.cms.gov/Research-Statistics-Data-Systems/MedicaidDataSourcesGenInfo.

Table 12: Percentage of Infants Who Had Well-Child Exam as Age Appropriate, First Steps 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
89.7	94.2	90.3	91.3	85.7	**90.3**	**NA**

Note: Maximum annual value of unknown status = 13.1 %; median value = 9.7%.

First Steps has adopted a target of 95% for the percentage of infants who have a medical home. This means more than having Medicaid or private health insurance; it requires having a usual place to go for medical care and through that getting medical care that is more likely to be likely to be uninterrupted and well-coordinated. The median value of 93.5% falls a bit short of the target.

Table 13: Percentage of Infants with Medical Home, First Steps 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
90.7	94.2	93.5	95.1	92.9	**93.5**	**95.0**

Still, there is some reason to view First Steps performance in this area as strong. While data does not appear available for newborns, state level data for children (i.e. persons under age 18) indicate that only 45.8% had a medical home.[54]

Outcome Area 2: Children will be safe in their homes

Table 14 provides information about the proportion of First Steps participants reporting that they provide a safe sleeping environment for their newborn child. The median value of 83.3% is considerably below the target of 95%. While the annual percentages were higher under the less stringent definition in place before 2017, only one year can be viewed as achieving a value connoting near attainment of the goal.

Table 14: Percentage of Clients Reporting Safe Sleeping Environment, First Steps 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
88.7	91.7	82.8	80.6	83.3	**83.3**	**95.0**

Note: Maximum annual value of unknown status = 14.3%; median value = 7.5%.
Note: Definition changed in 2017.

However a safe sleep environment for infants includes multiple dimensions. These include having infants sleep on their backs and having them sleep alone. First Steps does not specify a goal for either of these dimensions. Though neither the medians nor any single year value achieves a 95% value, the outcome levels are noticeably closer to that level than those for the more general metric.

Tables 15a and 15b provide information about the proportions of infants that are reported to sleep on their backs. The First Steps median of 91.4% is higher than any of the PRAMS sourced values displayed in Table 15b. The full stressor group value of

[54] This information was obtained from a section of the Kaiser Family Foundation website labeled State Health Facts. Accessed at https://www.kff.org/other/State-indicator/children-with-a-medical-home.

80.1% serves as a proxy for the universe of Wisconsin infants. It is more than ten percentage points lower. The gap between the First Steps median and, with one exception, the values for the groups experiencing more disadvantage is even larger.

Table 15a: Percentage of Clients Reporting Infant Sleeps on Back, First Steps 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
90.7	92.6	91.4	94.2	86.9	**91.4**	**NA**

Note: Maximum annual value of unknown status = 13.1%; median value = 7.5%.

Table 15b: Percentage of Clients Reporting Infant Sleeps on Back, First Steps Median and Various WI Statewide Values

First Steps Median	PRAMS Full Stressor Group[55]	PRAMS Low # Stressors	PRAMS High # Stressors	PRAMS Very High # Stressors	PRAMS AODA = Yes	PRAMS Abuse = Yes	PRAMS Depression = Yes
91.4	80.1	82.0	75.9	74.3	83.9	72.6	78.7

Table 15c: Percentage of Clients Reporting Infant Sleeps Alone, First Steps 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
88.7	90.9	88.2	88.3	83.3	**88.3**	**NA**

Note: Maximum annual value of unknown status = 14.3%; median value = 6.6%.

Table 15d: Percentage of Clients Reporting Infant Sleeps Alone, First Steps Median and Various WI Statewide Values

First Steps Median	PRAMS Full Stressor Group	PRAMS Low # Stressors	PRAMS High # Stressors	PRAMS Very High # Stressors	PRAMS AODA = Yes	PRAMS Abuse = Yes	PRAMS Depression = Yes
88.3	75.9	79.3	68.6	68.3	78.2	64.8	73.8

A similar group of relationships can be observed from the data found in Tables 15c and 15d. The First Steps median of 88.3% is more than twelve percentage points greater than the statewide proxy value of 75.9%. All of the values for the five groups that experience greater disadvantage are lower than the First Steps median. Taken as a whole, the information presented in Tables 15a through 15d suggest that while First Steps has fallen short of achieving its target for having parents provide a safe sleeping environment, outcomes are strong relative to the statewide groups it has been compared to.

Table 16 presents information about another indicator of home safety: the presence of a working smoke alarm. The median for the period is 86.6%, somewhat

[55] The full group of respondents to the stressor items is used to provide a reasonable proxy for the statewide distribution for any outcome. This is the case for the full "abuse" and "depression" groups as well. However as the proportion of missing cases increase to high levels (as for the AODA variable) the approximation becomes less reliable. The evaluator erred in not asking for single variable frequencies in his PRAMS data request.

short of attaining the target of 95%. Attainment levels appear to be decreasing over time, though this may be a product of a modified definition in 2017.

Table 16: Percentage of Clients Reporting Working Smoke Alarm, First Steps 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
86.6	91.7	90.3	81.6	83.3	**86.6**	**95.0**

Note: Maximum annual value of unknown status = 13.4%; median value = 11.7%.
Note: Definition changed in 2017.

It is difficult to assess how close the First Steps outcomes are to those for relevant populations. No estimate was found specifically for Wisconsin, let alone households with new mothers in the state. However, a 2014 paper from the National Fire Protection Association reported that in telephone surveys 96% of households report having at least one working smoke alarm. Nevertheless, the same paper identifies a 1992 study that actually tested alarms. It found that in 20% of the homes audited not a single alarm worked. Should the vast majority of the self-reports from First Steps participants be accurate, then their proportion of residences with working alarms should be quite similar to the implied percentage (about 77%) of working alarms amongst the general U.S. population. Unfortunately this author has not found information about the percentage of poverty or low income households having working smoke alarms.

Table 17: Percentage of Clients Reporting a Smoke Free Home, First Steps 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
92.8	90.1	90.3	96.1	91.7	**91.7**	**80.0**

A smoke free home is generally understood as one where no tobacco is smoked. The median value for this outcome among First Steps participants is 91.7%, almost twelve percentage points above the 80% goal. Moreover, every annual value during the evaluation period easily exceeds the target level. To provide context, the Wisconsin PRAMS 2016-2017 Surveillance Report states than roughly 85% of new Wisconsin mothers did not smoke. The figures for those in poverty, a population more comparable to First Steps participants declines to 74%. This suggests good program performance for First Steps, but readers are cautioned that the data being compared are not strictly equivalent.[56]

Start Right staff have reported that increasing priority is being given to screening participants for the purpose of identifying those with symptoms of depression and other significant mental health issues. This concern goes beyond identification. The goal is to link such participants to support services and to encourage them to make use of those services. Over the evaluation period there has been considerable year to year variation

[56] *Wisconsin PRAMS 2016-2017 Surveillance Report*, p. 20. The PRAMS figures are only for mothers and include behavior outside the home. In principle, the First Steps data should capture the behavior of other household residents.

in the percentage of First Steps participants reporting symptoms indicative of perinatal depression.[57] In the typical year the value is just over a quarter of all participants.

Table 18: Percentage of Clients Who Experienced Symptoms of Perinatal Depression Linked to Services, First Steps 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
97.1	88.0	92.3	74.1	64.3	**88.0**	**NA**

Note: Median value for participants reporting symptoms = 26.2%; annual values range from 16.7% to 35.1%

.

Table 18 displays the percentages of First Steps participants linked to services after they had been identified as experiencing symptoms of perinatal depression. The median value is 88.0%.First Steps has not specified a target value for this outcome. In point of fact, there is enough uncertainty about the incidence of depression, whether prenatal, perinatal, or postpartum that Healthy People 2030 is unwilling to identify current baseline levels, let alone recommend what proportion of women should be screened for the condition. It is important to note that there has been substantial variation in the annual values. Given recent priorities it should be a matter of concern, that the 2018 and especially the 2019 values are well below the median and the values for 2015 through 2017. This author possesses insufficient information to hypothesize about the likely cause(s), though it is improbable that it can be attributed to changes in First Steps' fiscal resources.

Outcome Area 3: Children will experience nurturing relationships with their parents

Tables 19 and 20 present observational data reported by First Steps personnel. The outcomes of interest are whether parents respond appropriately to their babies in two areas. The first of these are hunger cues, the second crying cues. In both cases, the target attainment level is 90%. Outcomes levels exceed target levels for both outcomes. Median values are 100% for both outcomes and the lowest annual value reported for either outcome is 97.7%. The data portrayed in Tables 19 and 20 support a conclusion of strong program performance.

Table 19: Percentage of Clients Observed Responding Appropriately to Hunger Cues (of Those Observed), First Steps 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
100.0	100.0	100.0	97.7	100.0	**100.0**	**90.0**

Note: Definition changed in July 2017, thus 2017 results represent a partial year.
Note: Maximum annual value of unobserved status = 21.4%; median value = 11.9%. Percentage of unobserved was considerably larger after the definition changed.

[57] There are somewhat competing definitions for the period of time termed "perinatal." One commonly used definition is the period starting roughly three months prior to a full term birth to about one month after birth.

Table 20: Percentage of Clients Observed Responding Appropriately to Crying Cues (of Those Observed), First Steps 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
100.0	99.1	100.0	100.0	100.0	**100.0**	**90.0**

Note: Definition changed in July 2017, thus 2017 results represent a partial year.
Note: Maximum annual value of unobserved status = 23.8%; median value = 13.6%. Percentage of unobserved was considerably larger after the definition changed.

Outcomes: Step by Step

Step by Step organizes its annual outcomes somewhat differently than First Steps, reflecting the programmatic shift to a more direct concern with child development (as opposed to the immediate needs of pregnant women or those who have recently delivered). There are six general areas, with three closely matching those for First Steps (area #1, #2, and #4).

(1) Children will be healthy
(2) Children will be safe in their homes
(3) Children will attain developmental appropriate milestones
(4) Children will experience nurturing relationships with their parents
(5) Parents who have an identified concern with AODA, domestic violence or mental health will receive supportive services.
(6) Children will be "school ready" when they begin school.

In contrast to the data provided by Start Right for the First Steps program, those for Step by Step do not include information about the frequency of cases where data is missing. Though the values reported remain accurate in themselves, as the proportion of missing cases grows there is less certainty that the result from the known cases closely resembles the result that would have been obtained had the missing cases been available.

Twelve of the outcomes examined in this section have attainment targets. The medians for eight of these (75%) equal or exceed the target value. Of the remaining four items, two (17%) can be characterized as being "near attainment." Thus two items (17%) fall well short of attainment. However, as with First Steps, comparison with the outcome levels of reference groups paints a more optimistic picture. For the majority of the outcomes where Step by Step does not achieve the target level, when viewed in reference to other groups, Step by Step outcome levels appear better than expected.

<u>Outcome Area 1: Children will be healthy</u>

The first outcome explored for the "children will be healthy" domain is the percentage of participating children having received their recommended immunizations by their second birthday. Step by Step specifies a target level of 90%. The data exhibited in Table 21 confirms that the median value (90.0%) for the evaluation period achieves the target. Annual values vary in a modest range above and below the target.

Table 21: Percentage of Children Fully Immunized on Schedule as of 24 Months, Step by Step 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
93.5	82.9	92.6	85.7	90.0	**90.0**	**90.0**

Moreover, Step by Step's performance in this area exceeds that for the general population of Wisconsin children two year of age. Annual figures for completing recommended Immunizations varied between 72.3% and 80.5% in the period of 2015 through 2018.[58] While no Wisconsin specific data were located about the impact of poverty and other risk factors on immunization rates, the CDC offers some relevant information, albeit for each specific vaccine rather than as a group. In general, immunization rates for young children living in poverty are a few percentage points lower than for a reference group composed of white non-Hispanic children. Generally, the gap is larger when a series of inoculations is needed.[59]

Step by Step specifies a target level of 90% for having children get age appropriate well-child medical examinations. Table 22 documents that that the target is achieved; the median value reported is 97.5%. Annual values also exceed the target throughout the evaluation period.

Table 22: Percentage of Children Reported on Schedule for Well-Child Exams, Step by Step 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
97.5	97.8	98.1	96.3	94.2	**97.5**	**90.0**

When a similar metric for First Steps was discussed (see Table 12), the available reference value was calculated from a Mathematica study of Medicaid enrolled children in nine states. While the median outcome level for First Steps (90%) is better than the value reported for this reference group experiencing more disadvantage (84%), the difference between the outcome level for Step by Step children and that for the Mathematica study was considerably greater (almost 14 percentage points to the good for Step by Step).

Table 23 exhibits information about the percentage of Step by Step children having a medical home. Observed outcomes exceed the 95% target. The median value is 99.1% and every annual value also exceeds the target. As identified in the discussion of a similar outcome variable for First Steps (see Table 14), there is a Wisconsin statewide value from the Kaiser Family Foundation of about 46%. That percentage, unfortunately, refers to all Wisconsin children rather than those in the birth to five age range served by Step by Step.

[58] Data are drawn from the KIDS Count Data Center at https://datacenter.kidscount.org. Data was not yet available for 2019.

[59] Data accessed from https://stacks.cdc.gov/view/cdc/ Data was for 2017.

Table 23: Percentage of Children with a Medical Home, Step by Step 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
99.2	99.3	98.1	99.1	99.1	**99.1**	**95.0**

Although any child may require use of emergency room services in a given year, a high percentage of use among any group of children implies a greater incidence of abuse. According to the CDC, in 2012 75.6% of children from birth to age six avoided using the emergency room in that year.[60] Step by Step stipulates a target of having 80% of the children it serves avoid the emergency room, a goal that appears about four percentage points above the observed value for children in an age group slightly larger than the one Step by Step serves.

With a median value of 75.2%, Step by Step outcomes can be characterized as reaching near attainment of the target, though barely so. Still as four of the five annual values reported by Table 24 exceed 75% and the fifth is only 0.2 percentage points below that level, the near attainment rating is appropriate. Step by Step outcomes are also extremely close to that reported in 2012 for all children zero to six.

Table 24: Percentage of Children with No Report of Emergency Room Use, Step by Step 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
75.2	74.8	75.2	78.7	77.5	**75.2**	**80.0**

Step by Step outcomes are noticeably better than those reported in the same CDC data for subgroups experiencing more disadvantage in the birth to age six population, such as those living in poverty or utilizing Medicaid, (67.3% for both) and possibly a little better than a near poverty (FPL to twice FPL) subgroup (74.0%).[61] So despite falling somewhat short of the 80% performance goal, Step by Step's result appears quite good.

Table 25 provides information about the proportion of eligible children enrolled in WIC. The target level is set at 90%. The median for Step by Step is only 84%, so the program misses its target by six percentage points. Worse, program performance appears to be decreasing. The first year value in the data series is 97.3%; the final value is only 80.9%. By contrast the median value for WIC participation of First Steps newborns was 97.5% with no indication of declining participation over the years (see Table 10).

[60] National Center for Health Statistics data accessed from https://www.cdc.gov/nchs/data/hus/2013/086.pdf
[61] Same as the previous footnote.

Table 25: Percentage of Eligible Children Enrolled in WIC, Step by Step 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
97.3	94.1	84.0	83.0	80.9	**84.0**	**90.0**

Nonetheless, these reported outcomes are actually reasonably strong. Both nationally and in Wisconsin the proportions of children either eligible or participating in WIC decline steadily with age. U.S. Food and Nutrition Data reports eligibility and participation rates for infants and children (WIC only serves children up to age five), categories that roughly emulate the differences in children's ages between First Steps and Step by Step. During 2014 (the most recent data available), 72.0% of eligible infants in Wisconsin were enrolled in WIC, but only 39.6% of eligible children. In this context, even the 2019 value for Step by Step looks excellent indeed.[62] Nonetheless, Step by Step staff would do well to look into why this outcome is declining.

Outcome Area 2: Children will be safe in their homes

Step by Step seeks to insure that young children will live in a physical environment that will neither impede their development nor their physical safety. Safety hazards may be of many types including environmental hazards, building deficiencies, and, perhaps most important, the behaviors of others in the household. Table 26 displays information about what Step by Step home visitors have observed about hazard reduction.

Table 26: Percentage of Client Homes Identified to Have Safety Hazards that Reduced or Eliminated Hazards, Step by Step 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
95.8	93.0	87.2	98.4	97.9	**95.8**	**85.0**

Every annual value exhibited in Table 26 surpasses the target value of 85%.The median value for the five year period is 95.8%, nearly eleven percentage points above the target. Regrettably, no reference group data was located.

Outcome Area 3: Children will attain developmental appropriate milestones

Health People 2030 recommends that 35.8% of children less than 36 months old be screened for developmental delays. Step by Step's aim is to substantially exceed this recommendation, establishing its own at 90%. It then meets this target with a median attainment of 90.7%.

Still this is but an initial step. Step by Step seeks to get 90% of the children identified as having a potential developmental delay services that will further diagnose and address the issue. Tables 27a and 27b look at whether those identified as having a

[62] Data accessed from the U.S. Department of Agriculture, Food and Nutrition Service at https://www.fns.usda.gov/wic/wic-eligibility-and-coverage-rates

potential developmental delay get intervention services. [63] Step by Step utilizes two different assessment instruments the ASQ-3 and the ASQ-SE. Table 27a presents service receipt data for the first of these, Table 27b for the second.

Table 27a: Percentage of Children Identified as Having a Potential Developmental Delay Getting Intervention Services (Identified through ASQ-3), Step by Step 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
85.7	100.0	97.7	100.0	99.0	**99.0**	**90.0**

Note: The percentage of children screened for developmental delays had a median value of 90.7% during a period beginning in 2016 (the 2015 value was not available). The annual percentage of children found to have a potential developmental delay through the ASQ-3 varied from 27.0% to 33.1%.

Table 27a shows that in the typical year of the evaluation period, 99% of those judged to have a potential developmental delay based on use of the ASQ-3, received intervention services in the same program year. The 90% target was exceeded in all years except 2015.

The data presented in Table 27b reveal that Step by Step has been at least as successful in this endeavor for children found to have a possible developmental delay using the ASQ-SE. Not only is the median value 100%, but it achieves that level in four of the five program years examined.

Table 27b: Percentage of Children Identified as Having a Potential Developmental Delay Getting Intervention Services (Identified through ASQ-SE), Step by Step 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
83.3	100.0	100.0	100.0	100.0	**100.0**	**90.0**

Note: The percentage of children screened for developmental delays had a median value of 90.7% during a period beginning in 2016 (the 2015 value was not available). The annual percentage of children found to have a potential developmental delay through the ASQ-SE varied from 3.9% to 5.7%.

<u>Outcome Area 4: Children will experience nurturing relationships with their parents</u>

As children grow the kinds of outcome measures (crying and hunger cues) that First Steps uses to assess whether children experience nurturing relationships with their parents become less appropriate. Step by Step uses two standardized instruments, the HOME inventory and the Parents as Teachers test of parenting knowledge, to gauge how much desired outcomes in this area are being achieved. [64] The results shown for both these indicators in Tables 28 and 29 below are positive.

[63] There has been no access to data that can be used to assess whether intervention services have proven successful.

[64] HOME is the acronym for Home Observation for Measurement of the Environment. Basic information about the scale was obtained from the National Center for Biotechnology Information, particularly from the abstract of an article by Bradley, R. H. and Caldwell E. M. "Home Observation for Measurement of the Environment." American Journal of Mental Deficiency. 84(3), November 1979, pp. 235-44. Accessed at https://pubmed.ncbi.nlm.nih.gov/93417

The HOME protocol is implemented by a Step by Step home visitor and is designed to measure the quality and quantity of stimulation and support available to a child in the home environment. The target achievement level is set at 80%. As the data shown in Table 28 demonstrates, the median outcome value (90.7%) exceeds the target by more than ten percentage points. Indeed, all five of the five annual values easily exceed the target too.

Table 28: Percentage of Parents Demonstrating Positive Parent-Child Interaction Using HOME Inventory, Step by Step 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
87.2	91.2	90.5	90.7	89.4	**90.5**	**80.0**

Table 29: Percentage of Parents Demonstrating Increased Parenting Knowledge Using Parents as Teachers Post-Test, Step by Step 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
77.8	82.7	80.0	80.6	83.8	**80.6**	**80.0**

Table 29 presents annual outcome data for the proportion of parents demonstrating increased parenting knowledge over time by scoring higher on a second evaluation via the Parents as Teachers test; i.e. one administered not only after a pre-test but also after a number of interactions with a home visitor. Step by Step aims to have at least 80% of the parents (or primary care givers) show increased knowledge on the post-test. The median outcome value of 80.6% is consistent with achieving this standard, if barely so. Annual results are generally at or slightly above the 80% target, with only one value slightly below.

<u>Outcome Area 5: Parents who have an identified concern with AODA, domestic violence or mental health will receive supportive services</u>

As noted in the presentation of First Steps outcomes, Start Right programming has become increasingly focused on addressing the mental health challenges participants face, especially maternal depression whether described as prenatal, perinatal, or post partum. Definitions of the perinatal generally include some fraction of both the prenatal and post partum periods, though there is no consensus as to what portions of each period should be included.[65] There is also some uncertainty about the incidence of moderate or serious depression among both pregnant women and new mothers, though there is consensus that it is fairly common. For instance, the CDC website offers that about 1/8 of new mothers exhibit significant symptoms of depression (that is, symptoms more severe and persistent than the so called “baby blues”).[66] A

---

[65] The greater disagreement is over the duration of the postnatal segment. Some definitions include only the first week or so after birth, others most or the whole of the child’s first year.

[66] *Depression During and After Pregnancy*. Centers for Disease Control and Prevention, U.S. Department of Health and Human Services, May 2021. Accessed at https://www.cdc.gov/reproductivehealth/features/maternal-depression/index.htm/

meta-analysis of 28 articles suggested the incidence of postpartum depression might approach 20%.[67] Wisconsin specific figures from the PRAMS data supplied for this report are similar to the national data. The "whole sample" rate for post partum (i.e., not specifically perinatal) depression is 15.4%.[68] The rates for the "high" and "very high" number of stressors subgroups are, respectively, 23.6% and 34.9%. Readers should recall that these two subgroups are similar to Start Right participants in that they are far more likely to experience disadvantageous conditions than the overall population of those giving birth in the state.

Table 30 presents the percentage of mothers referred to services for perinatal depression after being screened using the Edinburgh Postnatal Depression Scale (EPES). Not all mothers are screened; the percentages in the table are referral rates for those testing positive on the EPES. No outcome target is specified and the data series does not start until 2017. The median value is 96.3%; the annual values vary between 90% and 100%.

Table 30: Percentage of Mothers Referred to Services for Perinatal Depression Who Had Screened Positive, Step by Step 2017-19

2015	2016	2017	2018	2019	**Median**	**Goal**
NA	NA	90.0	96.3	100.0	**96.3**	**NA**

Note: Percentages were calculated from data provided by Step by Step

It is interesting to compare Table 30 to the data from Table 18 for First Steps participants. In the Table 18 data there is a considerable drop off after 2017 in the percentages linked to services. The 2017 rate of 92.3% drops to 64.3% in 2018. By contrast, the referral rates presented in Table 30 start at 90% and then increase. The difference between the reported referral or linkage rates is trivial in 2017 (barely two percentage points) but increase to about 22 percentage points for 2018 and then to more than 35 percentage points for 2019.

Perhaps the apparent differences in referral rates between First Steps and Step by Step reflect differences in the proportion of participants presenting symptoms indicative of significant depression. The median value reported for First Steps is 26.2%. The values for the 2017, 2018, and 2019 program years are, respectively, 29.9%, 27.6% and 17.7%. Step by Step did not provide comparable data, but an implied rate may be calculated from the number of individuals identified for referral. Given that a new client may sometimes be evaluated in the calendar year following enrollment, the estimate presented here is based on pooled data from the 2017 through 2019. There were 106 women screened during this period of which 48 screened positive. Given that the number of new families served by Step by Step in this period is 175, 27.4% is the

[67] From an abstract of Gavin, Norma I., et.al. "Perinatal Depression: A Systematic Review of Prevalence and Incidence Obstetrics & Gynecology." *Obstetrics and Gynecology,* 106 (5 pt. 1), November 2005, pp. 1071-83. Accessed from https://pubmed.ncbi/nim/nih.gov/16260528/

[68] This overall value was taken from the "stressors" crosstabulations, but the values taken from other crosstabulations would have been similar. As previously explained, differences arise from the proportions of missing cases.

estimated incidence of depression.[69] Thus, the rates for the two programs are of comparable magnitude.

Given that the vast majority of mothers served by Step to Step had been previously served by First Steps, it is unlikely that differences in client characteristics had much impact. Moreover the literature on prenatal and post partum depression suggest that there is only a modest difference in their prevalence. So the differences in referrals between the two programs suggest it is likely that something is different in how the two programs screen depression or how candidates for screening are identified.[70] In any case, it is not surprising that a larger proportion of individuals get referred to services when there are a smaller proportion of individuals identified as needing them.

Table 31 displays information about the percentage of parents raising concerns about the presence of one or more of the serious risk factors of AODA, domestic violence or mental health challenges impacting on their child's welfare. The median value is 50.9%. There is no trend, but there is substantial year to year variation with values fluctuating over a nearly 27 percentage point range. No target figure is specified.

Table 31: Percentage of Parents Having Identified One or More Concerns With AODA, Domestic Violence or Mental Health, Step by Step 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
66.2	39.6	49.4	50.9	54.6	**50.9**	**NA**

To provide context for the material in Table 31, one can turn to PRAMS data as a source of information about the frequency of these concerns among the general population of Wisconsin women pregnant or having given birth in 2016-19. Readers should approach this material understanding the two important ways it is different from than provided by Step by Step. First, the Step by Step material combines responses for three overlapping concerns into one. The PRAMS data keeps the three categories distinct. Second, in Step by Step data the locus of the concerns is more general. For example a respondent might be referring to her own use of alcohol or drugs, that of another household member or even that of a frequent visitor from outside the household. For PRAMS, the respondent is providing information about her own use of alcohol or drugs and/or mental state. However, in the series of abuse related items, the

[69] There is some uncertainty as to how the denominator for this calculation should be identified, given that the year of program entry, of screening, and of referral to services is not always the same. This author received somewhat different interpretations from two different staff members. The author decided to constitute the denominator as the number of new entrants to Step by Step when the child is born during the same calendar year (the data was taken from a report titled "2019 Start Right Program Data" p.7). It is possible that the data from the column "families with current year births who are already receiving services" should have also been used. Doing so would have marginally reduced the depression rate to 25.7% There may be other factors that may impact the estimate on the margin. For example, the number of new births may exceed the number of mothers (e.g. twins) and some mothers who were not screened may have tested positive had they been tested.

[70] The Step by Step program needed to resolve problems in this area before Healthy Families America would grant accreditation status. There is no detailed information on how First Steps screens for depression.

respondents are reporting the violence they suffered from others, not any they may have inflicted.[71]

The proportions of PRAMS respondents reporting having or having had what this author is categorizing as an "AODA problem" is about 7.4% of all new Wisconsin mothers who responded to the AODA items.[72] The corresponding rate for those who have experienced abuse (which in the PRAMS is defined as including various forms of physical abuse that may not necessarily be understood as violence) is 11.3%. Finally, the equivalent value for the depression/anxiety variable is 31.8%, not surprising given the prevalence of the condition and the length of time the survey items ask about. It is also not surprising that the statewide values are lower, even after discounting the differences in what is being measured. Nevertheless, it would be helpful if Start Right could disaggregate the Table 31 results into the three separate components to see, as is likely, whether the mental health component would be far larger than the other two.

Table 32 provides information about the percentages of parents who reported any of the concerns described in Table 31 who then received what are characterized as supportive services. Step by Step's target is 75%. The median value for 2015 through 2019 is 47.5% and only in 2015 does the annual value come reasonably close to the 75% goal.[73]

Table 32: Percentage of Parents Having Identified a Concern with AODA, Domestic Violence or Mental Health Getting Supportive Services, Step by Step 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
68.3	47.3	58.1	47.3	47.5	**47.5**	**75.0**

While these results are far from what Step by Step aspires to, it is useful to consider them against relevant Wisconsin state data. A recent Wisconsin Department of Health Services report contains estimates for the size of the gaps between the proportion of persons needing services and the numbers of persons receiving then in 2017. According to DHS the gap for adults needing mental health services is 46%. The gap for substance abuse services was greater at 69%.[74] Though the comparison is far

[71] The PRAMS supplied AODA variable is re-coded from multiple items. Excessive alcohol in the three months before pregnancy is defined as consuming more than seven drinks per week among those that had an alcoholic beverage in the two years before pregnancy. Drug use in the month before pregnancy is defined as responding "yes" to the use at least one of the following: methadone, naloxone, subutex, Suboxone, heroin, amphetamines, cocaine, tranquillizers or hallucinogens. Drug use during pregnancy is defined as responding "yes" to at least one of the substances mentioned in the previous sentence. The re-coded physical abuse variable includes the full year before pregnancy. The depression and anxiety items also include a pre-pregnancy period.

[72] There are is a very large proportion of respondents, about 45%, who did not respond to one or more of the AODA related items. By contrast, the percentages of missing data for the abuse items and the depression/anxiety items are less than 1/10 of one percent.

[73] Readers are cautioned that some of whom reported a concern in one calendar year may not have been referred to or received services until the following year.

[74] *Wisconsin Mental Health and Substance Use Needs Assessment 2019* . Division of Care and Treatment Services, Wisconsin Department of Health Services, September 2020, pp. 6, 10, 16 & 22. Accessed at https://www.dhs.wisconsin.gov/publications/p00613-19.pdf

from perfect, in large part because of the composite nature of this Step by Step outcome, the median value suggests a gap of almost 53%. This value is of a similar magnitude as those for the statewide population. On the other hand, if the target level of 75% captures the participants' genuine level of need, the putative gap is reduced to about 28%.

Still, of the any of the Start Right goals that specify target achievement levels, this one is the furthest from achievement. It is also a goal that may be the most difficult to reach. While a home visiting program such as Step by Step may have the capacity to provide some basic services in this area, the intensive services needed in many cases can only be provided by external sources. As, according to Wisconsin DHS, there are large gaps been actual and needed service capacity, Step by Step will continue to be unable to meet this goal.

Outcome Area 6: Children will be "school ready' when they begin school

One of Start Right's longer term objectives to insure that the children it serves will be ready to benefit from formal education. At present, it does not appear that any data is being collected that can directly assess the degree to which this objective is being achieved. However, that does not mean that the data displayed in Table 33 isn't germane. Though technically the information refers to movement from Step by Step to another setting, the movement reflects staff's appraisal, usually at the age of two and a half, of whether the child is ready to move on from Step by Step.[75]

Table 33: Percentage of Children 3 to 5 Participating in Pre-School, Head Start and/or an Early Childhood Program, Step by Step 2015-19

2015	2016	2017	2018	2019	**Median**	**Goal**
71.0	73.5	48.3	75.0	65.7	**71.0**	**75.0**

The median value for this indicator is 71%. As this value is four percentage points under the target value of 75%, the outcome goal can be characterized as nearly attained. Most of the annual values are reasonably close to the target value, though, for unknown reasons, the 2017 value falls far short.

A NOTE ON ROI and COST- BENEFIT ANALYSIS

During the initial discussions about how this evaluation should be performed, Start Right staff expressed interest in having either a cost-benefit or a return on investment (ROI) analysis done as part of the evaluation. Furthermore, the evaluator was asked to consider whether the focus of the analysis could be restricted to the Marathon County government instead of the usual much broader "societal" focus typical of cost-benefit studies, though to a lesser extent of ROI analyses.

[75] Of course the child's parent(s) might initiate the child's departure from Step by Step or move out of Marathon County and thus become ineligible for further services.

For readers unfamiliar with the terms, cost-benefit and ROI, at the most general level, refer to approaches for assessing whether an undertaking was worth doing. Cost-benefit analysis attempts to identify all possible benefits and costs, including opportunity costs, to measure or assess (whenever possible) their monetary value, and to arrive at a judgment as to whether the undertaking had value. Crucially, this judgment is made not only as to whether the value is positive, but also as to how much value it has compared to all other "practical" alternatives. In the real world, many of the most salient benefits and, to an often unrecognized degree, costs either can't be monetized or are substantially misrepresented in the effort to do so.

The ROI seeks to make a more modest assessment: what is the ratio between the value that an undertaking produces and the value of the resources needed to achieve it. The basic decision rule as to whether an undertaking is worthwhile is having a ratio greater than one, though one can compare the ROI of different activities as a basis to choose among options. The use of ROI is usually straightforward in business where the aim is to assess profitability, but can be more problematic when assessing public services. Even when outcomes can be accurately measured it can be difficult to meaningfully monetize them. Thus, in many cases, evaluators use cost-effectiveness approaches that do not necessarily require the monetization of all outcomes. What this approach sacrifices is the ROI's simple decision rule, replacing it with decision makers' (including citizens') judgments about how to balance multiple and sometimes irreconcilable goals.

This author's decision was not to attempt either a cost-benefit or a ROI analysis. Given both available time and resources, there were too many barriers to completing either. However, the most serious barrier of all was the nature of the outcome data provided by Start Right. As discussed in the Evaluation Design section of this report, there was no basis for estimating net outcomes. Irrespective of whether one is performing a cost-benefit or ROI analysis, only the additional outcomes produced by the activity can be measured and valued. While, hypothetically, there may be situations where net and gross outcomes are the same, this is never the case with social programs. Even among populations experiencing the most dreadful conditions, some proportion of the children will become school ready and some proportion will never engage in delinquent behavior despite the absence of effective social and educational programs.

None of this is to suggest that Start Right wouldn't benefit from a well designed and conducted cost-benefit or ROI study. Many of the recommendations offered in the next section of this report are aimed at making that more feasible. Furthermore, to return to an issue brought up in the first paragraph of this section, it would be defensible to limit the focus of any such study strictly to the Marathon County government. However, doing so requires restricting the costs and benefits included to those directly incurred and realized by the county government. For example, it would not be justifiable to include any savings to Marathon County school districts in a study with that limited a focus.

Lastly, it would be remiss not to mention that prenatal coordination and home visiting programs have demonstrated very good results in both cost-benefit and ROI analyses. To provide just one example, a PEW Center on the States issue brief reports a roughly 5.7 to 1 ROI ratio for home visiting programs.[76] A series of estimates gathered by research staff at Federal Research Bank of Minneapolis were generally higher with a median ratio of 8.5 to 1.[77]

SUMMARY AND RECOMMENDATIONS

This section of the report consists of a brief summary of results, followed by a series of recommendations. These recommendations are largely intended to augment the capacity to assess Start Right operations and outcomes, irrespective of whether that is done externally or internally.

Summary of Findings

What should an evaluation of an ongoing program like Start Right accomplish? According to one standard text in the field, it should complete five basic tasks.

- It should determine whether the program is reaching the appropriate beneficiaries.
- It should determine whether the program is being properly delivered.
- It should determine whether program funding is being used appropriately.
- It should be able to determine whether program effectiveness can be estimated.
- It should determine whether and how well the program is working.[78]

Before moving forward, it must again be cautioned that there cannot be a direct assessment of the Start Right program. Any conclusion offered by this report must be arrived at indirectly, by in some sense aggregating the conclusions reached about its two major components, First Steps and Step by Step. As previously argued, this is mainly because the data provided for this evaluation does not allow one to follow participants across time or programs.

As a formative evaluation, this report fulfills the five identified tasks to varying degrees. However, it is clear that there is sufficient evidence to affirm that both the First Steps and Step by Step programs serve their intended clienteles of women and young children at high risk for adverse outcomes. This result is largely guaranteed by diligently applying program eligibility standards and processes. Further verification of this, if

---

[76] See *Issue Brief: The Business Case for Home Visiting*. PEW Center on the States, October 2011, pp. 3-4. This article was provided by Start Right staff, but should be accessible at https://pewcenteronthestates.org/homevisiting

[77] Grunewald, Rob. *Early Experiences Elevate Everything: Early Brain and Child Development and Wisconsin's Future*. Toward One Wisconsin Conference, November 12. 2020. This PowerPoint presentation was provided by Start Right staff, it does not appear available online. Rob Greenwald can be contacted at the Federal Reserve Bank of Minneapolis; the e-mail is Rob.Grunewald@mps.frb.org.

[78] Berk, Richard A. and Rossi, Peter H. *Thinking about Program Evaluation*. Sage Publications, Inc: Newbury Park, CA, 1990, pp. 63-95.

needed, should be possible by looking at individual case files. A related and relevant issue that was not examined is what is the actual size of the population in Marathon County that would qualify for First Steps or Step by Step and what proportion are receiving needed services through either those two programs or other means.

It is more difficult to give a confident assessment as to whether both programs are being properly delivered. There is simply better, independent evidence to support claims of strong program implementation for Step by Step than for First Steps. By itself, accreditation through Healthy Families America makes a convincing case that the program is satisfactory delivered. By contrast, there hasn't been an external review of First Steps operations in recent years or, if one informant is correct, ever. While, First Steps uses multiple techniques such as case audits and frequent supervisory reviews to monitor performance and to take corrective actions, this author has not been privy to any documentation that confirms their effectiveness. However participant feedback has been highly positive, essentially equaling the level of satisfaction that Step by Step participants have expressed for that program. Still, no evidence was found to suggest there are program implementation deficiencies worth mentioning. So, while it is likely that First Steps is properly delivered, the author is not comfortable asserting that claim unequivocally.[79]

This evaluation did not attempt the third task, that of judging whether program funds were used appropriately. However, without making any assessment as to whether Start Right fully met its fiduciary responsibilities, the fact is that outcome levels on most measures remained strong despite significant funding reductions (especially as measured in constant dollars). This evidence suggests that funds are used responsibly and efficiently.

The fourth task is that of determining whether program effectiveness can be estimated. The word often used to describe this is "evaluability." The assessment is a mixed one. Both First Steps and Step by Step identify and measure outcomes in ways that promote evaluability. The shortcoming, both in terms of providing data for this evaluation and how outcomes (to the best of my knowledge) are typically reported to funders and other stakeholders, does not support use of good analytical techniques. A second issue is that the programs have either not sought or been able to obtain information about longer term outcomes, for example about children's educational performance or the incidence of delinquent behavior. There is nothing in principle that prevents making substantial improvements in this area, though doing so may require changes to program operations, additional resources, and in many cases, cooperation from external actors.

[79] As will be noted later in this section, the overall assessment of First Steps outcomes is positive and about as strong as that for Step by Step. Why can't this be used as evidence for good program implementation? In principle there can be other reasons good outcomes are observed including chance. If one is assessing implementation quality as a First Steps toward eliminating or at least deemphasizing the role factors beyond the program play in producing outcomes, then to reverse this procedure negates that opportunity.

For most interested parties, the final task, that of determining how effective a program is, will be the most important one. In the cases of First Steps and Step by Step this task is made more challenging by the inability to establish effect sizes or even whether observed differences are statistically significant. As a fallback position, this author has approached this question in two ways. The first is to establish whether observed performance met the performance target that Start Right set. The second is to compare observed performance to one or more external references. Some references serve as proxies for a general (or advantaged) population of interest, some as proxies for the disadvantageously situated persons that utilize Start Right. As already noted, this approach is far from ideal. Standards of judgment are slack and as a consequence there is a greater likelihood of misjudgment in close cases than if it had been possible to apply more rigorous methods. Yet there is another hazard. There has been no assessment of the relative contribution of different outcomes to the health of pregnant women or to whether their newborns thrive. Restated, not all goals are likely to have the same importance, but that possibility is ignored in this attempt to draw conclusions about the overall effectiveness of First Steps and Start Right.

In the "Outcomes" section of this report First Steps is found to meet or exceed program goal target in six of nine cases (67%). There was one case where performance appears a little short of the target and two more where it fell appreciably short. In two of these three cases, First Steps performance appears to be better than expected when compared to the reference groups. On the third, there is no reference group, but over the last years of the evaluation period First Steps' performance has made up most of its shortfall compared to the target level.

There are nine outcome goals for which First Steps has not specified a target level. Of these, this author finds that performance is relatively strong vis-a-vis the reference groups in five of the eight cases where it was possible to make an assessment. There is no reference group for the remaining outcome (which is a metric about referral and use of depression related services). However the swift decline in outcome levels over the final years of the evaluation period is concerning, though trends may well be motivated by reductions in the availability of external services rather than any real deterioration in First Steps' performance.

Turning to Step by Step, eight of the twelve outcome targets are met or exceeded. Of the four that are not met, in two cases the median values were within the five percentage point margins that allow classification as "near attainment." Furthermore in two of the cases of non-attainment, Step by Step outcomes appear favorable in comparison to those for the reference group. In the case of the outcome exhibiting the poorest performance relative to the target value, a contributing factor (and likely the primary cause) is the insufficiency in the availability of external services to respond to problems such as AODA, abuse, and mental illness. Lastly, in comparison to First Steps, few of the Step by Step outcomes looked at in this study lack a target.[80] Of the two, in one case relative performance appears good. Unfortunately, in the other case no

[80] To speculate, this may be related to the fact that Step by Step uses a service model that has an accreditation process. Such processes generally specify measureable outcome standards.

information was found for a reference group that would support the appraisal of Step by Step's relative performance.

To summarize, First Steps either meets performance targets or there is evidence of strong performance relative to the reference groups looked at for 13 of 18 (72%) outcomes. For Step by Step, this criterion is met for 11 of 14 (79%) of outcomes. On this basis it is possible to assert that both of these programs are doing quite well. From this it is possible to make a positive assessment of Start Right, as First Steps and Step by Step have become, by a large margin, what Start Right does.

Of course, there are outcomes for which program performance is far from stellar and there is certainly room for substantial improvement even when performance has been assessed as adequate or better. It should also be noted that the vast majority of outcomes measures Start Right uses captures how often something occurs or is provided. While this is usually appropriate, there are outcomes where a qualitative assessment is needed to provide a complete picture. For example, while counting service referrals and usage is important, it is also important to learn whether the services were relevant and useful.

Recommendations

No recommendations are offered with the specific aim of making Start Right a more effective program for meeting its clientele's needs or achieving Marathon County's purposes. This statement must not be construed as suggesting that the program has no need for significant changes. Rather, it is an acknowledgement that making recommendations about program objectives and the operating procedures best suited to achieving them are beyond this evaluator's competence. All the recommendations that are made are for the purpose of improving the ability to assess the program, whether by external parties or internally by program staff.

Nonetheless, it would be facile to claim that these recommendations will have no impact on program operations. Many may have potential to improve program operations in areas such as quality improvement and supervision. On the other hand, virtually all of the recommendations have costs, often significant ones, in both fiscal terms and the use of staff time. It is no secret that Start Right has experienced non-trivial reductions in resource levels; there is no guarantee that this trend will be reversed. Still, in presenting the recommendations, cost implications will not be addressed.

- It is strongly recommended that a common database be created for First Steps and Step by Steps. Currently data for each program is housed at the organization responsible for delivering each program, the Marathon County Health Department for First Steps and Children's Hospital of Wisconsin –Community Services for Step by Step. While this does not preclude each entity from retaining its own program records, a common database would expedite assessment efforts and may also have benefits for program management and coordination of services.

- To the extent possible, program outcomes should be followed within a program (especially Step by Step) and across programs (i.e. movement between First Steps and Step by Step). As Start Right is intended to support the development of the young children it serves, i.e., to increase the likelihood they will thrive both while attached to Start Right and afterwards, it is important to develop the capacity to track individuals and the cohorts of whom they are members across time Currently, such data are packaged into discrete calendar years. It is likely that most of the relevant data already resides in First Steps and Step by Step records, but a system needs to be designed to retrieve information and to organize it for analysis. There may be challenges to merging information because of the program's differing foci (pregnant woman versus children and their households). Finally to track outcomes post-Start Right, will require cooperation with entities external to not only the agencies that implement Start Right, but also outside of Marathon County government.

- When providing data for assessment purposes, especially to external evaluators, it is important to provide information about the distribution of both outcomes and of participants' demographic and socio-economic characteristics. This is best done by providing de-identified individual level data. However, when this cannot be done, providing information about the distributions (especially measures of variance) along with frequencies, percentages and/or measures of central tendency, will support the ability to tell whether observed differences across groups or time are real.

- Start Right should consider gathering a broader range of information about the demographic and socio-economic characteristics of participants at both program enrollment and, for Step by Step, on an annual basis. This will help support subgroup comparisons within the program and will enhance the possibility of finding external comparison or reference groups.

- Identifying comparison groups and being able to obtain relevant data for them could greatly increase the quality of assessments of outcomes and of program implementation. In large part, this is because it would support methodologically sound estimates of program net impacts. Achieving this will be difficult, both in regards to identifying an appropriate group and obtaining data. One suggestion from Start Right staff is to consider using a sample drawn from Wisconsin Medicaid recipients as about 95% of entering First Steps participants had Medicaid eligibility. This suggestion has merit and should be explored. However, despite the high rate of "transfer" from First Steps into Step by Step, the proportion of women with Medicaid is already lower than 90% and that continues to decline over time. While 93% of the children entering Step by Step are Medicaid eligible, that proportion declines to under 90% within a year. Thus a comparison group drawn from Medicaid becomes ever less attractive for making comparisons as durations of participation lengthen, potentially approaching six years. There is also a conceptual issue that should be considered in thinking about potential comparison groups. Entry to Start Right is ultimately not about standard demographic characteristics or participation in public programs such as Medicaid. Instead, from Start Right's beginnings eligibility was "universal" on the basis of experiencing a high level of risk factors detrimental to

healthy pregnancies and proper early childhood development. The choice of a comparison group should as far as practicable embody this criterion. Thus, a Medicaid based comparison group needs to be assessed to determine if it adequately approaches this standard.

- In the absence of an adequate comparison group, Start Right should consider continuing the expedient of using reference groups comparable to what was done in this report. However this should be accomplished on a far more systematic and institutionalized basis, potentially involving better alignment of data definitions with those used by the entities that collect and analyze data about the reference groups. In theory this could be a passive process where Start Right makes unilateral adjustments, but a cooperative process has the potential for far better results. Potential partners in Wisconsin are likely to be found in the Department of Health Services and the Department of Children and Families.

- Start Right should continue to reexamine target outcome levels over time to make sure they are consistent with evidence based knowledge as to what is both desirable and practical. Particular attention should be given to identifying targets for those First Steps outcomes that do not have them. Start Right should try to identify outcome metrics that provide better information about the quality of service in addition to the proportion of participants that are served.

- First Steps needs to better document its efforts to monitor program delivery and to take and complete any needed corrective action. Beyond supporting program assessment and quality improvement efforts, this will help assure program accountability to external regulators, funders and other stakeholders

- Start Right should consider occasional use of focus groups and interviews to solicit more nuanced information from its participants than is possible to get using surveys. Considerable attention will be needed to insure these activities are conducted in ways that are most likely to elicit candid feedback.

- Should Start Right engage external parties to perform a more comprehensive evaluation, it should be staffed with at least one person highly familiar with prenatal care coordination programs and home visiting programs aimed at benefiting infants and young children. The evaluation should include direct observation of program activities and access to records, on condition of obtaining consent when required.

- Should Start Right decide or be required to arrange for a cost-benefit or return on investment study with a strictly local focus, it is recommended that it extend beyond the agencies of Marathon County government to include public agencies that incur costs or benefits in reference to all of Start Right's programmatic goals. For example, as one of those outcomes is school readiness, costs and benefits incurred or produced through school districts located in the county need to be included in the study. Start Right should also give serious consideration to expanding the potential

study's "accounting stance" beyond governmental units to capture costs and benefits for all county residents.

- Given that Start Right has multiple goals not all of which are readily monetized, it should consider arranging for a cost-effectiveness study rather than a return on investment study, should a cost-benefit study be decided to be impractical or unnecessary.

Marathon County Health Department

Pre and Post-Natal Home Visiting Model Transition

Purpose: Review current pre and post-natal home visiting model and delivery model change to the Nurse Family Partnership model.

Current Situation and Overview

Home Visiting Programming

> *"The first three years of a child's life are the "bricks and mortar" of brain development - building the foundation for future learning, behavior, and health. Evidence shows that when we invest the early years, infants and toddlers become healthy children who are confident, empathetic, and ready for school and life. Communities and governments can provide parents with the support they need to succeed and thrive."*
>
> —The National Association of Counties

Funding and supporting early childhood programming, including prenatal and post-natal services is a common function of county health departments. Counties provide early childhood or prenatal support to over 16 million children in the United States each year. Pre-natal and post-natal home visiting programs have been proven to reduce rates of smoking, decrease emergency room use, decrease infant mortality, decrease pregnancy-induced hypertension, increase mom's attempts at breastfeeding, decrease a parent's dependance on Medicaid, decrease overall costs on Medicaid, and also decrease childhood language delays (County Health Rankings).

Current State of Programming

Marathon County Health Department currently delivers prenatal and post-natal services utilizing the Start Right model, which provides a range of supports to women, children, and families in Marathon County Wisconsin for the purpose of facilitating healthy births and the subsequent healthy development of newborns through age five. Some services of Start Right are performed in partnership with Children's Wisconsin. Start Right is housed in the Marathon County Health Department and receives roughly 90.5%of its funding from county levy. The program also receives a small amount of revenue from Medicaid billing.

Start Right's target population consists of pregnant women, young children, and their families who are at a high risk for poor outcomes. Start Right's goals are to ensure:

- Children will experience nurturing relationships with their parents
- Children will be healthy
- Children will be safe in their homes
- Children will be "school ready" when they begin school

Start Right has two main components: First Steps, a prenatal care coordination program, and Step by Step, which addresses the needs of children from birth to age five through a home visiting program.

Participation in Start Right was impacted by COVID. Families were seen via telemedicine, and referrals to Children's Wisconsin decreased in 2020. The participant volume is just starting to recover in 2022. Start Right served approximately 66 families in 2018.

While First Steps and Step by Step were historically based upon evidence-based intervention models, an evaluation conducted on behalf of Marathon County through UniverCity recommended that MCHD explore more robust data collection and longitudinal outcome data to show statistical outcome measurement. The UniverCity evaluator was unable to conduct longitudinal evaluation on the MCHD Start Right contributions and thus, was unable to quantify the return on investment for certain aspects of the Start Right model in Marathon County. Part of the model is provided by Children's Wisconsin, and they use the Healthy Families America model, which is evidenced-based and has researched longitudinal impacts. Based on the UniverCity study, County Administration directed the Health Officer to evaluate potential alternatives on home visiting models that would provide greater access to return on investment data and longitudinal impacts. As a result of the analysis, the health department is transitioning to the Nurse-Family Partnership model to deliver home visiting services. This model, and the anticipated programmatic and financial benefits of it, are explained below.

Background

Nurse Family Partnership

The Nurse-Family Partnership (NFP) is a voluntary home visiting program model that supports low income, first-time mothers and their babies by assisting parents to increase their parenting and life skills. Specially trained registered nurses provide support, advice, and education on diverse topics regarding child and maternal health, development, and care. Visits to families begin during early pregnancy and continue until age 2. To date, NFP is replicated in 40 states, and eight Wisconsin Counties including Dunn, Chippewa, Eau Claire, Juneau, Adams, Sauk, Dane, and Kenosha Counties. In Wisconsin, NFP has served over 2,650 families since 2007.

The goals of NFP are:

1. Improve pregnancy outcomes by helping women engage in good preventative health practices
2. Improve child health and development by helping parents provide responsible and competent care
3. Improve the economic self-sufficiency of the family by helping parents develop a vision for their own future

NFP is a highly structured model that ensures compliance with statistical research and outcomes. There are very specific requirements for nurse training and involvement to achieve these expected outcomes. In addition, the model requires voluntary participation by parents who qualify as low-income.

NFP has had more than 40 evaluation studies, including randomized controlled trials and large-scale replication data. According to the County Health Rankings Evidence Rating, NFP gets the highest rating indicating strong scientific support citing longstanding evidence, and they highlight the following outcomes:

- NFP mothers have more stable partner relationships, enhanced parenting skill, and are less reliant on welfare.
- Participants are less likely to deliver their babies preterm and more likely to initiate and continue breastfeeding than non-visited mothers.
- Participants engage in fewer risky behaviors, with less substance abuse during pregnancy and experience less impairment to parenting due to substance abuse.
- NFP appears to reduce mortality in both mothers and children over the long term.

NFP has evidence to support return on investment. Factoring in savings, including criminal justice implications, medical care, child welfare, special education costs and quality of life, it's estimated that the return on investment is $60,428 per family served, resulting in a 6.4 to 1 benefit to cost ratio.

Return on Investment	
NFP Program	$60,428 per family served 6.4 to 1 benefit to cost ratio Miller 2015d*

County Health Rankings goes on to explain why this strategy is recommended as a strategy that has shown clear results:

- *Children of participants are less likely to be maltreated or abused.*
- *The program leads to reductions in emergency room visits and hospital days.*
- *Nurse-visited children have fewer emotional disorders and behavioral problems than non-visited peers at age six and nine.*
- *In some documented instances, they also do better academically, and have stronger language skills and longer attention spans.*
- *They demonstrate more positive behaviors, with fewer arrests, fewer sex partners, and reduced use of alcohol and tobacco during adolescence.*
- *Program effects persist for daughters of NFP participants: they are less likely to be arrested and convicted of a crime, have fewer children, and use less Medicaid support.*
- *The Nurse-Family Partnership is cost-effective, reducing government costs and producing positive net benefits.*

The NFP model would have capacity to serve approximately 50 families in 2023, which is similar to the pre-pandemic number of Start Right families in 2018 of 66. The current estimated demand for Marathon County services is 50 families. Volumes are anticipated to grow after 2024 and will meet or exceed previous Start Right numbers.

Strategy

Marathon County Health Department would join an existing consortium of counties utilizing the NFP model (i.e., Eau Claire, Chippewa, and Dunn). MCHD would reallocate health department staff from Start Right activities to the NFP model of care and would no longer contract for Start Right services from Children's Wisconsin.

Currently, the county pays $690,000 per year for an external partner, Children's Wisconsin, to provide services. By changing the model, the health department would be able to see 50 families and save $372,972 in 2023. To join the NFP model on its own, MCHD would need to guarantee demand exceeding 50 families. Joining the consortium assists the county with cost sharing as well as ensuring that we can meet demand while also using the model.

Change to the NFP model will provide evidenced-based programming and longitudinal outcome measurement to support ongoing resource allocation. After the 2023 startup costs have been expended, savings for the program would increase. 2024 projections indicate that the savings of this model will be $646,476 over previous years.

Model comparison:

Pre-natal, Post-natal Care Program Comparison	**Start Right**	**NFP**
Agency providing service	MCHD and Children's Wisconsin	MCHD only
Uses contractual assistance	Yes-Children's Wisconsin	No
Ages served	Pregnancy up to age 5	Pregnancy up to age 2
Primigravida or Multigravida (First pregnancy only or multiple pregnancies)	Multigravida (Multiple pregnancies)	NFP participants primigravida only (First pregnancy only) MCHD has supports for mothers in subsequent pregnancies if eligible through Pre-natal Care Coordination, another model that is billed through Targeted Case Management
Supervision	MCHD one supervisor to three nurses/Children's Wisconsin has independent supervision	One supervisor to three nurses, shared cost of clinical supervision through the consortium
Evidence based Model	MCHD First Steps-no Children's Wisconsin-yes (Healthy Families of America)	Yes (including longitudinal studies), NFP is considered a statistically significant program with proven outcomes
Data Collection	MCHD collects data	NFP would provide support on local data collection

	Children's Wisconsin provides reports	
ROI	Unknown per UniverCity evaluation	$60,428 per family served
FTEs	MCHD's Start Right program has 2.54 public health nurses (BSN), 1.23 FTE administrative support Children's Wisconsin funds 10.96 FTE (0.43 FTE Manager, 1.5 FTE Prevention Supervisor, 9.03 FTE family educators)	Existing MCHD staff would be repurposed from Start Right activities to NFP. 1.9 FTE Public Health Nurses (BSN) 0.7 FTE Administrator 0.5 RN Supervisor (BSN or higher) 0.5 FTE Administrative Assistant
Education Required	Home visitors need some college education	BSN level nursing staff required for home visiting.
Number of families served	66 (2018)	50 (2024)
Estimated Marathon County cost per family	$17,372 per unduplicated family	$10,273 per unduplicated family

The number of families served (50) matches the current need in our community. The NFP model would be providing more frequent home visiting in a shorter period (2 years).

Anticipated Ancillary Impacts: Children's Wisconsin may no longer provide county-funded "play and learn" opportunities, which have since decreased during the pandemic. Of note, United Way has funded these opportunities in the past, and may choose to do so again. Loss of county funding will impact Children's Wisconsin's staffing model, their ability to deliver other similar services in their service array, and their ability to accept funding from external partners for this purpose.

Financial analysis of the two programs shows that there is a definitive financial benefit with bringing these services in-house through the Nurse Family Partnership, as the savings could be as much as $372,972 to the county in the first year of implementation, and $646,476 in savings in 2024 in comparison with previous budget cycles. The program will still benefit the community through direct home visiting, will provide Marathon County with a proven evidenced-based model of care, modernized programming, provide return on investment information and enhance data collection including the ability to develop longitudinal data specific to Marathon County.

Implementation milestones

September 1, 2022	Sign consortium agreement, begin transition planning for existing clients
January 1, 2023	Program implementation begins • Promotional material development/ implementation/distribution to partners and key stakeholders • MCHD website updates • Staff attends required trainings
March 1, 2023	Begin seeing clients through NFP
March 31, 2023	Conclusion of Start Right Contract with Children's Wisconsin

Transitions of care would occur in the first quarter of 2023 and Children's Wisconsin would be funded for Q1 with the goal of transitioning children within the Start Right program into existing programming within the community or providing appropriate discharge planning. Some of the currently participating families may already by duel enrolled in Birth to 3 and Start Right, so this transition may be minimal. Some children may be eligible for Head Start as well. MCHD will be an active partner in assisting in transition planning.

Non-Model Related Considerations

- Nurse staffing has been difficult to recruit and retain. Aspirus and Marshfield are increasing wages and recruitment bonuses far beyond what we have been able to offer, and MCHD has lost 2 nurses in the past year to large sign on bonuses of $15,000 to $20,000. There is risk to losing additional nursing staff to local healthcare organizations.
- The financial projections within this memo are based upon future patient demand remaining consistent relative to recent utilization. Increases or decreases in demand could impact the financial analysis.

References

Blueprints- Center for the Study and Prevention of Violence (CSPV). Blueprints for healthy youth development.

Brookings-Isaacs 2007- Isaacs JB. Cost-effective investments in children. Washington, DC: Brookings Institution; 2007.

Eckenrode 2010- Eckenrode J, Campa M, Luckey DW, et al. Long-term effects of prenatal and infancy nurse home visitation on the life course of youths: 19-Year follow-up of a randomized trial. Archives of Pediatrics & Adolescent Medicine. 2010;164(1):9-15.

Eckenrode 2017*- Eckenrode J, Campa MI, Morris PA, et al. The prevention of child maltreatment through the Nurse Family Partnership program: Mediating effects in a long-term follow-up study. Child Maltreatment. 2017;22(2):92-99.

Miller 2015d*- Miller TR. Projected outcomes of Nurse-Family Partnership home visitation during 1996-2013, USA. Prevention Science. 2015;16(6):765-777.

OJJDP Model Programs- Office of Juvenile Justice and Delinquency Prevention (OJJDP). OJJDP model programs guide.

Olds 2007- Olds DL, Kitzman H, Hanks C, et al. Effects of nurse home visiting on maternal and child functioning: Age-9 follow-up of a randomized trial. Pediatrics. 2007;120(4):e832-45.

Olds 2010- Olds DL, Kitzman HJ, Cole RE, et al. Enduring effects of prenatal and infancy home visiting by nurses on maternal life course and government spending: Follow-up of a randomized trial among children at age 12 years. Archives of Pediatrics & Adolescent Medicine. 2010;164(5):419-24.

Olds 2014*- Olds DL, Kitzman H, Knudtson MD, et al. Effect of home visiting by nurses on maternal and child mortality: Results of a 2-decade follow-up of a randomized clinical trial. JAMA Pediatrics. 2014;168(9):800-806.

Olds 2014b*- Olds DL, Holmberg JR, Donelan-McCall N, et al. Effects of home visits by paraprofessionals and by nurses on children: Follow-up of a randomized trial at ages 6 and 9 years. JAMA Pediatrics. 2014;168(2):114-121.

RAND-Karoly 2017- Karoly LA. Investing in the early years: The costs and benefits of investing in early childhood in New Hampshire. Santa Monica: RAND Corporation; 2017.

SPTW- Social Programs That Work (SPTW). Full list of programs.

Thorland 2017b*- Thorland W, Currie DW. Status of birth outcomes in clients of the Nurse-Family Partnership. Maternal and Child Health Journal. 2017;21(5):995-1001.

Thorland 2017*- Thorland W, Currie D, Wiegand ER, Walsh J, Mader N. Status of breastfeeding and child immunization outcomes in clients of the Nurse-Family Partnership. Maternal and Child Health Journal. 2017;21(3):439-445.

US DHHS-HomVEE NFP- US Department of Health and Human Services (US DHHS). Home Visiting Evidence of Effectiveness (HomVEE): Nurse-Family Partnership (NFP).

US DOJ-Olds 2011- Olds D, Miller TR, Knudtson M, et al. Impact of the Nurse-Family Partnership on neighborhood context, government expenditures, and children's school functioning. Washington, DC: US Department of Justice (US DOJ); 2011: Grant No.2005-MU-MU-0001.

UW Madison-Small 2005- Small SA, Reynolds AJ, O'Connor C, Cooney SM. What works, Wisconsin: What science tells us about cost-effective programs for juvenile delinquency prevention: A report to the Wisconsin governor's juvenile commission and the Wisconsin Office of Justice Assistance. Madison: University of Wisconsin-Madison; 2005.

WSIPP-Benefit cost- Washington State Institute for Public Policy (WSIPP). Benefit-cost results.

Marathon County Health Department
Estimated Cost of Start Right Programming - Net of Revenue Received ①
CY 2023

	Start Right	
②	Personnel (Wages + Benefits)	429,742
③	Payments to CSSW	690,000
	Interpreting Services	9,000
	Subcontract w/ Aspirus	7,800
	Mileage	7,800
④	Cell/Data Charges for PHNs	1,260
	Printing / Copying / Postage	4,250
	Computer Maintenance Contract	2,436
	Educational /Medical Supplies	1,950
	Staff Development	1,470
	Telephone	450
	Films / Videos	400
	Aspirus Donation Revenue	(10,000)
		1,146,558
	Perinatal Care Coordination (PNCC)	
	Personnel (Wages + Benefits)	81,229
	MA Revenue & Carryforward	(81,229)
		(0)
	Targeted Case Management (TCM)	
	Personnel (Wages + Benefits)	16,338
	Payments to CSSW	11,000
	MA Revenue & Carryforward	(27,338)
		(0)
	Net Cost of Start Right (Levy Funded)	**1,146,558**

Assumptions:

① Budget structure based on current Start Right model.

② 3% increase to personnel expenses from 2022 budget for Start Right. All other expenses remain consistent to 2022 budget for Start Right.

③ No increase or decrease to CSSW contract for Start Right.

④ In 2022, PHN cell phone costs are covered by COVID funding and thus are not included in 2022 budget. This funding will not be available in 2023 and must be budgeted as a part of programming.

* Indirect expenses are not included in the Start Right model.

* 4.85 total MCHD FTE

Marathon County Health Department
Estimated Cost of NFP Programming - Net of Revenue Received
CY 2023

NFP-Specific Expenses: Ongoing		
Personnel (Wages + Benefits)	330,656	①
Nightingale Notes Support	25,000	
Indirect Expenses (6%)	24,812	②
Network Partner Support Fee	22,512	
Marketing of Program	20,000	
Mileage	11,500	
Interpreting Services	10,000	
Special Report and Data Transmission Fee	7,200	
Educational /Medical Supplies	5,115	
Advisory Board Costs	5,000	
Printing / Copying / Postage	4,070	
Office Supplies & Expenses	3,581	
Computer Maintenance Contract	3,000	
Staff Development	7,810	
Cell/Data Charges for PHNs	1,260	
	481,516	
NFP-Specific Expenses: One-Time/Start-Up		
Start-Up Fee	33,775	
Initial Education & Orientation	19,914	
Contingency Fund	15,000	
Travel for training	11,510	
IT Equipment (Computers, Smartphones)	7,400	
Indirect on One-Time/Start-Up Costs (6%)	4,885	②
PIPE Training / Materials	4,405	
DANCE Education	1,800	
Staff Recruitment Costs	1,500	
ASQ Materials	1,120	
	101,309	
NFP-Specific Expenses: Staff Replacement Costs		③
Education / Orientation / Training	23,736	
Travel for training	11,510	
Staff Recruitment Costs	1,500	
	36,746	
NPF-Specific Revenue Earned		
Aspirus Donation Revenue	(10,000)	
PNCC / TCM Revenue	(15,000)	④
	(25,000)	
Non-NPF PNCC Expenses & Revenue		
Personnel (Wages + Benefits)	115,564	
Contract w/ CSSW	150,000	⑤
MA Revenue Earned	(86,550)	
Net Cost of Non-NPF PNCC	179,014	
Net Cost of NFP Model (Levy Required)	**773,585**	
Levy Cost Savings: NFP v. SR - Year One	**372,972**	

Assumptions:

① 3% increase to 2022 wages.

② Includes indirect expenses of 6% on personnel and programmatic costs to capture true cost of NFP program.

③ National average turnover rate for RN's = 15%

④ Conservative estimate for NFP-specific MA revenue billed to account for caseload-building; 1/3 of estimated annual revenue ($45,000) earned at full capacity

⑤ Decrease to CSSW contract of $558,800 for NFP program.

* 4.85 total MCHD FTE

Marathon County Health Department
Estimated Cost of NFP Programming - Net of Revenue Received
CY 2024

NFP-Specific Expenses: Ongoing		
Personnel (Wages + Benefits)	340,576	①
Nightingale Notes Support	25,750	
Indirect Expenses (6%)	25,514	②
Network Partner Support Fee	22,716	
Marketing of Program	20,000	
Mileage	11,845	
Interpreting Services	10,900	
Special Report and Data Transmission Fee	3,000	
Educational /Medical Supplies	4,824	
Advisory Board Costs	5,000	
Printing / Copying / Postage	4,192	
Office Supplies & Expenses	3,688	
Computer Maintenance Contract	3,090	
Staff Development	8,246	
Cell/Data Charges for PHNs	1,298	
	490,639	
NFP-Specific Expenses: Staff Replacement Costs		③
Education / Orientation / Training	21,714	
Travel for training	7,437	
Staff Recruitment Costs	1,545	
	30,696	
NPF-Specific Revenue Earned		
Aspirus Donation Revenue	(10,000)	
PNCC / TCM Revenue	(30,150)	④
	(40,150)	
Non-NPF PNCC Expenses & Revenue		
Personnel (Wages + Benefits)	119,031	
Contract w/ CSSW	0	⑤
MA Revenue Earned	(86,550)	
Net Cost of Non-NPF PNCC	32,481	
Net Cost of NFP Model (Levy Required)	**513,666**	
Levy Cost Savings: NFP v. SR - Year Two	**646,476**	⑥

Assumptions:

① 3% increase to personnel and most other expenses for NFP programming.

② Includes indirect expenses of 6% on personnel and programmatic costs to capture true cost of NFP program.

③ National average turnover rate for RN's = 15%

④ Conservative estimate for NFP-specific MA revenue billed to account for caseload-building; 2/3 of estimated annual revenue ($45,000) earned at full capacity.

⑤ Payments to CSSW completely eliminated in Year 2.

⑥ Start Right - Year 2 budget calculated by increasing Personnel and cell phone expenses by 3%; all other expenses remain consistent with previous year's budget. MCHD FTE count remains the same.

* 4.85 total MCHD FTE

Nurse-Family Partnership

OVERVIEW

FACT

GENERAL INFORMATION

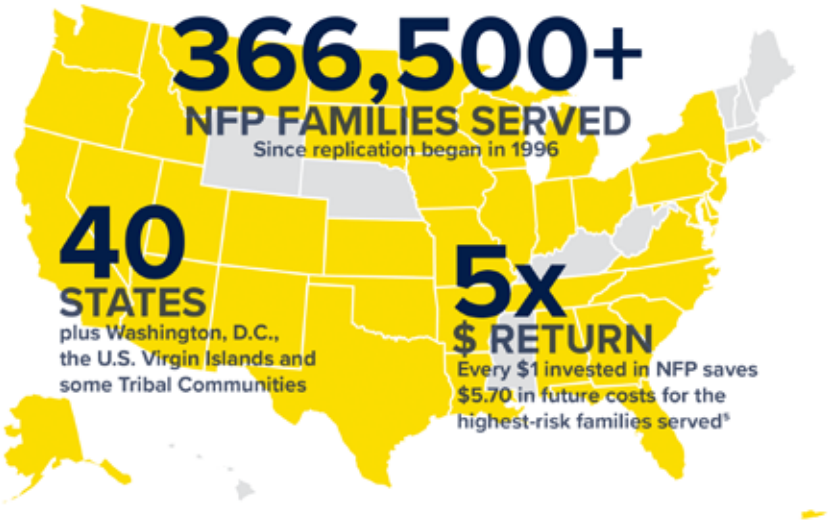
Nurse-Family Partnership® is an evidence-based, community health program with 45 years of research showing significant improvements in the health and lives of first-time moms and their children affected by social and economic inequality.

> CHILDREN'S PROGRAMS ARE SUCCESSFUL WHEN THEY LEVERAGE THE MOST DIFFICULT JOB IN THE WORLD: PARENTING.
>
> NICHOLAS KRISTOF
> PULITZER PRIZE-WINNING JOURNALIST

Better Worlds Start with Great Families

Nurse-Family Partnership succeeds by having specially educated nurses regularly visit first-time moms, starting early in the pregnancy and continuing until the child's second birthday. Research consistently proves that the partnership between a nurse and the mom is a winning combination that makes a measurable, long-term difference for the whole family.

Moms enrolled in Nurse-Family Partnership benefit by getting the care and support they need in order to have a healthy pregnancy. At the same time, families develop a close relationship with the nurse who becomes a trusted resource they can rely on for advice on everything from safely caring for their child to taking steps to provide a stable, secure future for their new family.



Nurse-Family Partnership Goals

1. Improve pregnancy outcomes by partnering with moms to engage in good preventive health practices, including thorough prenatal care from their healthcare providers, improving their diets and reducing any use of habit-forming substances;
2. Improve child health and development by assisting families provide responsible and competent care; and
3. Improve the economic self-sufficiency of the family by supporting parents to develop a vision for their own future, plan additional pregnancies, continue their education and find work.

> THERE IS A MAGIC WINDOW DURING PREGNANCY… A TIME WHEN THE DESIRE TO BE A GOOD MOTHER AND RAISE A HEALTHY, HAPPY CHILD CREATES MOTIVATION TO OVERCOME INCREDIBLE OBSTACLES INCLUDING POVERTY WITH THE HELP OF A WELL-EDUCATED NURSE.

DAVID OLDS, PHD
FOUNDER OF NURSE-FAMILY PARTNERSHIP AND PROFESSOR OF PEDIATRICS AT THE UNIVERSITY OF COLORADO

Nurse-Family Partnership
Helping First-Time Parents Succeed®

1900 Grant Street, 4th Floor
Denver, Colorado 80203
NurseFamilyPartnership.org
866.864.5226

Proven Results

The Nurse-Family Partnership program has been independently reviewed and evaluated, and is ranked as the Gold Standard of home visiting programs.

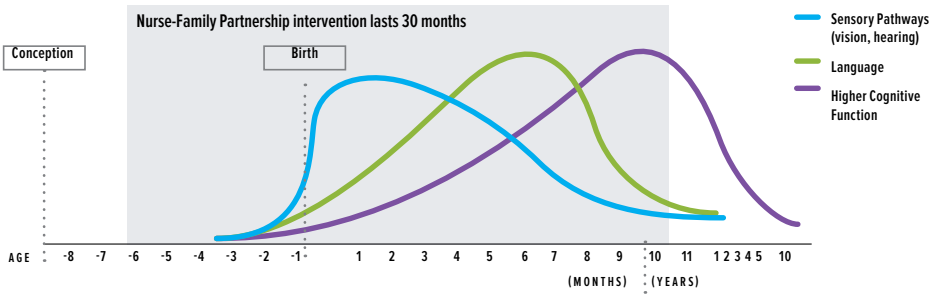
- ↓ **48%** LESS LIKELY TO SUFFER CHILD ABUSE AND NEGLECT[1]
- ↓ **56%** REDUCTION IN ER VISITS FOR ACCIDENTS AND POISONINGS[6]
- ↓ **67%** LESS LIKELY TO EXPERIENCE BEHAVIORAL AND INTELLECTUAL PROBLEMS AT AGE 6[2]
- ↓ **72%** FEWER CONVICTIONS OF MOTHERS (MEASURED WHEN CHILD IS 15)[1]
- ↓ **35%** FEWER HYPERTENSIVE DISORDERS OF PREGNANCY[4]
- ↑ **82%** INCREASE IN MONTHS EMPLOYED[3]

Early Intervention

A report from the Center on the Developing Child at Harvard University shows the extent to which very early childhood experiences influence later learning, behavior and health. The Harvard report shows basic brain functions related to vision, hearing and language development during the first 30 months of a child's life. It is during this timeframe that the early and intensive support by a Nurse-Family Partnership nurse can have a huge impact on the future of the mom, child and family.

Human Brain Development

Synapse formation dependent on early experiences



Source: Nelson, C.A., In Neurons to Neighborhoods (2000).

1. Olds, D.L., et al. (1997). Long-Term Effects of Home Visitation on Maternal Life Course and Child Abuse and Neglect Fifteen-Year Follow-up of a Randomized Trial. JAMA 1997
2. Olds DL, et al. Effects of nurse home visiting on maternal life-course and child development: age-six follow-up of a randomized trial. Pediatrics 2004
3. Olds DL, Henderson CRJ, Tatelbaum R, Chamberlin R. Improving the life-course development of socially disadvantaged mothers: a randomized trial of nurse home visitation. American Journal of Public Health 1988
4. Kitzman H, et al. Effect of prenatal and infancy home visitation by nurses on pregnancy outcomes, childhood injuries, and repeated childbearing. A randomized controlled trial. Journal of the American Medical Association 1997
5. Karoly, L., Kilburn, M. R., Cannon, J. Proven results, future promise. RAND Corporation 2005.
6.Olds DL, et al. Preventing child abuse and neglect: a randomized trial of nurse home visitation. Pediatrics. 1986

Nurse-Family Partnership

FACT

BENEFITS AND COSTS

A RIGOROUSLY TESTED PROGRAM WITH MEASURABLE RESULTS

Nurse-Family Partnership® is an evidence-based community health program with 45 years of research showing significant improvements in the health and lives of first-time moms and their children affected by social and economic inequity.

5x

$ RETURN

EVERY $1 INVESTED IN NFP SAVES $5.70 IN FUTURE COSTS FOR THE HIGHEST-RISK FAMILIES SERVED[2]

Nurse-Family Partnership's foundational research is from randomized controlled trials conducted in three diverse settings. This research shows that first-time mothers working with a Nurse-Family Partnership nurse can transform their lives and the lives of their children. Nobel laureate James Heckman has studied Nurse-Family Partnership and found that the following improved: maternal mental health and home environments, birth weights in boys, children's cognitive development and boys' educational achievement.[1]

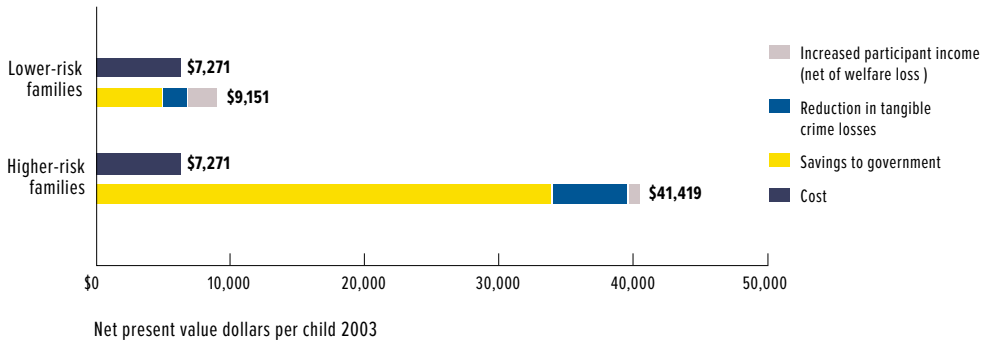
The cost of the Nurse-Family Partnership program varies depending on the location. For example the cost of the program in South Carolina is estimated to run $6,000 per family and $9,600 per family in New York City. Nurses' salaries are the primary driver of the variability in cost, with highest typically found in urban centers on either coast and in hospital-based programs.

Communities choose to invest in Nurse-Family Partnership because investments can yield substantial, quantifiable benefits in the long term — to parents, their children and the communities in which they live.

COST-BENEFIT STUDIES

A 2005 RAND Corporation analysis found a net benefit to society of $34,148 (in 2003 dollars) per higher-risk family served, with the bulk of the savings accruing to government, equating to a $5.70 return for every dollar invested in Nurse-Family Partnership (see graph). The analysis also found that for the higher-risk families participating in the first trial in Elmira, NY, the community recovered the costs of the program by the time the child reached age four, with additional savings accruing throughout the lives of both mother and child.[2]

Monetary Benefits to Society



Net present value dollars per child 2003

Source: 2005 RAND Corporation Study

BENEFITS AND COSTS

When Medicaid pays for Nurse-Family Partnership services, the federal government saves more than it spends on the program costs, according to a 2015 study by Ted Miller from the Pacific Institute for Research and Evaluation.[3]

Using data from the Nurse-Family Partnership randomized controlled trials and other published studies, Miller's analysis noted that Nurse-Family Partnership nurse-visited families gained academic and employment skills to become economically self-sufficient. According to the Miller analysis, Nurse-Family Partnership services resulted in lower enrollment in Medicaid and SNAP, with an 8.5% reduction in Medicaid costs from birth to age 18 and a 9.6% reduction in SNAP costs in the 12 years following the birth of the child. Federal savings were estimated at $3 billion to TANF, SNAP and Medicaid.[3]

LASTING IMPACT

Data from the 15-year follow-up study to the Nurse-Family Partnership trial in Elmira, NY showed positive effects for nurse-visited families more than 12 years after the visits ended. In addition, the following outcomes have been observed among participants in at least one of the three randomized controlled trials:

- **48% reduction in child abuse and neglect**[4]
- **59% reduction in arrests among children**[5]
- **72% fewer convictions of mothers**[4]
- **56% reduction in emergency room visits for accidents and poisonings**[6]
- **67% reduction in behavioral and intellectual problems among children at age 6**[7]

When families participate in the Nurse-Family Partnership program, not only are there quantifiable savings for government programs or statistical positive effects, but real-life families are getting the assistance and knowledge needed to achieve the future they want for themselves.

NATIONAL SUPPORT

Nurse-Family Partnership is serving moms in 40 states, Washington D.C., the U.S. Virgin Islands and some Tribal Communities. The national headquarters in Denver, CO, works with participating network partners to ensure that they adhere to the tested and proven approach. Network partners are required to input data regarding family characteristics and needs and the services provided during each nurse home visit into a web-based performance management system. Reports are provided back to the agencies, tracking fidelity to the proven model, and ensuring communities realize comparable outcomes to those documented over the past 45 years.

Well-designed randomized controlled trials are an accepted research practice in the field of medicine. Randomized controlled trials are essential in producing valid, actionable evidence about what does and does not work, and are designed to provide conclusive evidence of effectiveness. Medical breakthroughs that are the result of randomized controlled trials include vaccines for polio, measles and hepatitis B, as well as cancer treatments that have dramatically improved survival rates for patients with leukemia, Hodgkin's disease and breast cancer. However, for public health programs, evidence from clinical trials often is not required. This is changing as policymakers, public health officials and the communities they serve increasingly demand proven approaches for addressing public health. Nurse-Family Partnership is one such proven program. With results from three randomized controlled trials over three decades in Elmira, NY, Memphis, TN and Denver, CO, Nurse-Family Partnership is the epitome of an evidence-based public health program.

Nurse-Family Partnership
Helping First-Time Parents Succeed®

1900 Grant Street, 4th Floor
Denver, Colorado 80203
NurseFamilyPartnership.org
866.864.5226

"NURSE FAMILY PARTNERSHIP IS EVIDENCE-BASED AND HAS ALREADY SHOWN REAL RESULTS BOTH IN THE HEALTH OF THE MOTHERS AND THE BABIES, BUT ALSO IN OTHER ASPECTS OF THE MOTHER'S LIFE SUCH AS GRADUATION RATES FOR TEEN MOMS AND UNEMPLOYMENT RATES.

— U.S. SEN. TIM SCOTT OF SOUTH CAROLINA

1. Heckman, J. J., Holland, M. L., Makino, K. K., Pinto, R., & Rosales-Rueda, M. (2017). An Analysis of the Memphis Nurse-Family Partnership Program. National Bureau of Economic Research Working Paper 23610.
2. Karoly, L., Kilburn, M. R., Cannon, J. Proven results, future promise. RAND Corporation 2005.
3. Miller, T. Projected Outcomes of Nurse-Family Partnership Home Visitation During 1996–2013, USA. Prevention Science. 2015
4. Reanalysis Olds et al. (1998) Long-term effects of home visitation on maternal life course and child abuse and neglect fifteen-year follow-up of a randomized trial. Journal of the American Medical Association 1997
5. Reanalysis Olds et al. Long-term effects of nurse home visitation on children's criminal and antisocial behavior: 15-year follow-up of a randomized controlled trial. Journal of the American Medical Association 1998
6. Olds DL, et al. Preventing child abuse and neglect: a randomized trial of nurse home visitation. Pediatrics 1986
7. Olds DL, et al. Effects of nurse home visiting on maternal life-course and child development: age-six follow-up of a randomized trial. Pediatrics 2004

Nurse-Family Partnership

RESEARCH TRIALS AND OUTCOMES

FACT

THE GOLD STANDARD OF EVIDENCE

Nurse-Family Partnership® is an evidence-based, community health program with 45 years of research showing significant improvements in the health and lives of first-time moms and their children affected by social and economic inequality.

> "IT IS NOT JUST EMPIRICAL EVIDENCE [THAT NURSE-FAMILY PARTNERSHIP HAS] THAT'S IMPORTANT; IT'S A CERTAIN TYPE OF EMPIRICAL EVIDENCE, NAMELY EVIDENCE FROM RANDOM ASSIGNMENT EXPERIMENTS. BECAUSE THAT'S THE GOLD STANDARD OF RESEARCH AND WE HAVE LEARNED OVER AND OVER AGAIN THAT ANY OTHER KIND OF STUDY IS LIKELY TO PRODUCE AN INCORRECT ANSWER. SO NOT ONLY IS THERE GOOD EVIDENCE FROM THE STUDY, BUT THE EVIDENCE IS FROM THE VERY BEST KIND OF RESEARCH.

RON HASKINS,
Senior Fellow, Economic Studies Co-Director,
Brookings Institution Center on Children and Families

TRIAL OUTCOMES

Trial outcomes demonstrate that Nurse-Family Partnership delivers against its three primary goals of better pregnancy outcomes, improved child health and development and increased economic self-sufficiency — making a measurable impact on the lives of children, families and the communities in which they live.

For example, the following outcomes have been observed among participants in at least one of the trials of the program.

48% reduction in child abuse and neglect[1]

56% reduction in ER visits for accidents and poisonings[2]

50% reduction in language delays of child age 21 months[3]

67% less behavioral/intellectual problems at age 6[4]

32% fewer subsequent pregnancies[5]

82% increase in months employed[6]

61% fewer arrests of the mother[1]

59% reduction in child arrests at age 15[7]

A Cornerstone of Nurse-Family Partnership Model

Nurse-Family Partnership is an evidence-based community health program that serves first-time mothers who face major barriers to accessing resources and supports needed to achieve the greatest health and wellness outcomes. Built upon the pioneering work of David Olds, Ph.D., Nurse-Family Partnership's model is based on 45 years of evidence from randomized controlled trials (RCTs).

Beginning in the early 1970s, Olds initiated the development of a nurse home visitation program for first-time mothers and their children. Over the next three decades, he and his colleagues continued to test the program in three separate RCTs (see details on next page.) The RCTs were designed to study the effects of the Nurse-Family Partnership model on maternal and child health and child development, by comparing the short- and long-term outcomes of mothers and children enrolled in the Nurse-Family Partnership program to those of a control group of mothers and children not participating in the program.

RESEARCH TRIALS AND OUTCOMES

Year Launched: 1977
Location: Elmira, NY
Number of Participants: 400
Target Population: Low-income whites
Target Location: Semi-rural area

Year Launched: 1987
Location: Memphis, TN
Number of Participants: 742
Target Population: Low-income Blacks
Target Location: Urban area

Year Launched: 1994
Location: Denver, CO
Number of Participants: 735
Target Population: Low-income Hispanics
Target: Program Service Providers

A Lasting Impact

Today, Olds and his team at the Prevention Research Center for Family and Child Health at the University of Colorado continue to study the model's long-term effects and lead research to continuously improve the Nurse-Family Partnership program model. Since 1979, 14 follow-up studies tracking program participants' outcomes across the three trials have been (and continue to be) conducted. Longitudinal studies measure the short- and long-term outcomes of the program. Although the Nurse-Family Partnership National Service Office maintains a close association with the Prevention Research Center, the two remain professionally independent.

Supporting the Nurse-Family Partnership Model

Today, Nurse-Family Partnership maintains fidelity to its model by using a web-based performance management system designed specifically to collect and report Nurse-Family Partnership family characteristics, needs, services provided and progress toward accomplishing program goals as recorded by Nurse-Family Partnership nurses. This process is fundamental to ensuring successful program implementation and beneficial outcomes that are comparable to those from the RCTs.

A Basis for Evidentiary Standards

The evidentiary foundations of the Nurse-Family Partnership model are among the strongest available for preventive programs offered with public investment. Given that the original trials were relatively large, resulted in outcomes of public health importance and were conducted in local community health settings with nearly entire populations of families living in neighborhoods where adversity was most pronounced, these findings are relevant to comparable communities throughout the U.S.

Nurse-Family Partnership's evidence began with RCTs, which is consistent with the approach promoted by evidence-based policy groups including the Urban Institute, America Forward, Results for America, Blueprints for Violence Prevention, the RAND Corporation, the Brookings Institution among others which seek to provide policymakers and practitioners with clear, actionable information on programs that work — and are demonstrated in scientifically valid studies. While RCTs remain the gold-standard in research, and particularly so when determining the efficacy of program models, rigorous quasi-experimental design studies (QEDs) are also well-regarded when evaluating the effectiveness of implementations of such previously established models in large-scale program replication or population health applications. To that end, several QEDs published in peer-reviewed journals have also found contemporary beneficial effects of Nurse-Family Partnership.

1. Reanalysis Olds et al. Long-term effects of home visitation on maternal life course and child abuse and neglect fifteen-year follow-up of a randomized trial. Journal of the American Medical Association. 1997
2. Olds DL, et al. Preventing child abuse and neglect: a randomized trial of nurse home visitation. Pediatrics. 1986
3. Olds D.L., Robinson J., O'Brien, R. Home visiting by paraprofessionals and by nurses: a randomized, controlled trial. Pediatrics. 2002
4. Olds DL, et al. Effects of nurse home visiting on maternal life-course and child development: age-six follow-up of a randomized trial. Pediatrics. 2004
5. Olds, D.L., Eckenrode, J., et al. Long-Term Effects of Home Visitation on Maternal Life Course and Child Abuse and Neglect Fifteen-Year Follow-up of a Randomized Trial. JAMA. 1997
6. Olds D.L., Henderson C.R. Jr., Tatelbaum R., Chamberlin R. Improving the life-course development of socially disadvantaged mothers: a randomized trial of nurse home visitation. 1988
7. Reanalysis Olds et al. Long-term effects of nurse home visitation on children's criminal and antisocial behavior: 15-year follow-up of a randomized controlled trial. Journal of the American Medical Association. 1998

Nurse-Family Partnership
Helping First-Time Parents Succeed®

1900 Grant Street, 4th Floor
Denver, Colorado 80203
NurseFamilyPartnership.org
866.864.5226

Wisconsin Department of Health Services
Division of Public Health
PHAVR - WEDSS

YTD Disease Incidents by Episode Date

Incidents for MMWR Weeks 1 - 28 (Through the week ending July 16, 2022)

Jurisdiction: Marathon County

		2022							
Disease Group	**Disease**	**Week 22**	**Week 23**	**Week 24**	**Week 25**	**Week 26**	**Week 27**	**Week 28**	**Total**
Babesiosis	*Group Total:*	0	0	1	0	0	0	0	1
Blastomycosis	*Group Total:*	0	1	0	0	0	0	0	3
Campylobacteriosis	*Group Total:*	0	1	0	2	1	0	0	11
Carbon Monoxide Poisoning	*Group Total:*	0	0	0	0	0	0	0	4
Chlamydia Trachomatis	*Group Total:*	8	6	9	6	7	10	14	194
Coronavirus	*Group Total:*	321	272	321	301	264	281	270	13931
Cryptosporidiosis	*Group Total:*	0	0	0	0	0	2	0	5
Ehrlichiosis / Anaplasmosis	*Group Total:*	4	1	1	5	0	0	0	20
Giardiasis	*Group Total:*	0	0	0	0	0	1	0	4
Gonorrhea	*Group Total:*	1	3	4	4	4	4	2	35
Haemophilus Influenzae	*Group Total:*	0	0	0	0	0	0	0	1
Hepatitis A	*Group Total:*	0	0	0	0	0	0	0	1
Hepatitis B	*Group Total:*	0	0	0	0	0	0	0	4
Hepatitis C	*Group Total:*	3	0	0	0	0	0	0	17
Histoplasmosis	*Group Total:*	0	0	0	0	0	0	0	1
Influenza Associated Hospitalization	*Group Total:*	0	0	0	0	0	0	0	22
Invasive Streptococcal Disease (Groups A And B)	*Group Total:*	0	0	1	0	0	0	0	8
Legionellosis	*Group Total:*	0	0	0	0	0	0	0	1
Lyme Disease	*Group Total:*	8	11	13	15	12	16	14	122
Meningitis, Aseptic (Viral)	*Group Total:*	0	0	0	0	0	0	0	1
Mycobacterial Disease (Nontuberculous)	*Group Total:*	0	0	1	0	0	0	0	7
Pathogenic E.coli	*Group Total:*	0	0	0	1	1	0	0	8
Salmonellosis	*Group Total:*	1	0	0	0	1	2	2	15
Streptococcus Pneumoniae Invasive Disease	*Group Total:*	0	0	0	0	0	0	0	3
Syphilis	*Group Total:*	2	0	0	0	0	1	1	5
Tuberculosis	*Group Total:*	0	0	0	0	0	0	0	4
Tuberculosis, Latent Infection (LTBI)	*Group Total:*	0	1	0	0	2	0	0	21
Typhoid Fever	*Group Total:*	0	0	0	0	0	0	0	1
Varicella (Chickenpox)	*Group Total:*	0	0	0	0	0	0	0	3
Vibriosis, Non Cholera	*Group Total:*	0	0	0	0	0	0	0	1
	Period Total:	348	296	351	334	292	317	303	14454

Pre and Post Natal Home Visiting

Laura Scudiere, MPH CHES

Marathon County Health Officer

Current model: Start Right

First Steps	Step by Step
Marathon County Health Department	Children's Wisconsin

Current State

- In October 2021, UniverCity conducted a Start Right Evaluation
- Reviewed at Board of Health in January of 2022

Nurse-Family Partnership Goals

1. Improve pregnancy outcomes by partnering with moms to engage in good preventive health practices, including thorough prenatal care from their healthcare providers, improving their diets and reducing any use of habit-forming substances;
2. Improve child health and development by assisting families provide responsible and competent care; and
3. Improve the economic self-sufficiency of the family by supporting parents to develop a vision for their own future, plan additional pregnancies, continue their education and find work.

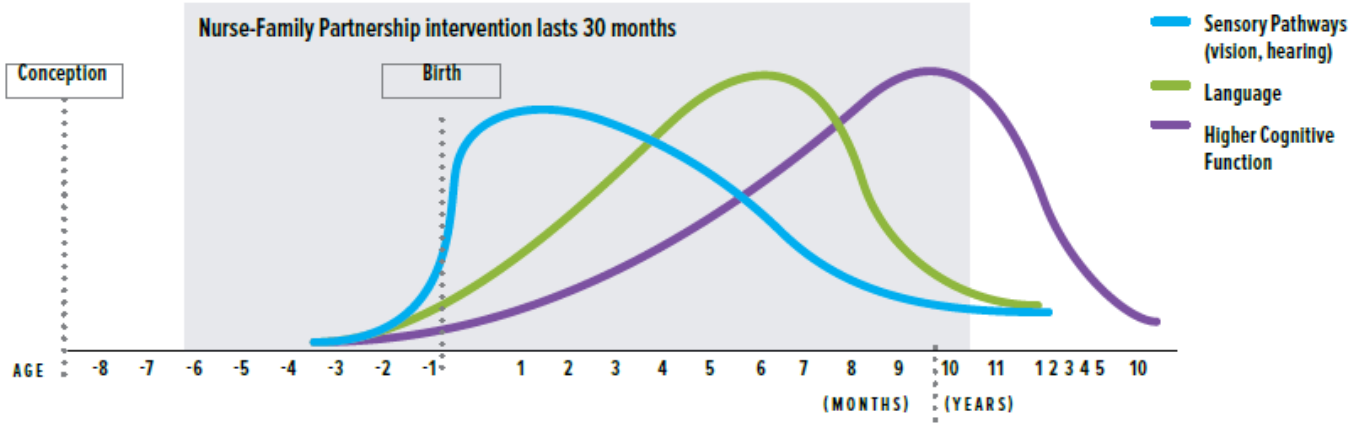
MARATHON COUNTY

Early Intervention

A report from the Center on the Developing Child at Harvard University shows the extent to which very early childhood experiences influence later learning, behavior and health. The Harvard report shows basic brain functions related to vision, hearing and language development during the first 30 months of a child's life. It is during this timeframe that the early and intensive support by a Nurse-Family Partnership nurse can have a huge impact on the future of the mom, child and family.

Human Brain Development

Synapse formation dependent on early experiences



Source: Nelson, C.A., In Neurons to Neighborhoods (2000).

Proven Results

The Nurse-Family Partnership program has been independently reviewed and evaluated, and is ranked as the Gold Standard of home visiting programs.

- ↓ 48% LESS LIKELY TO SUFFER CHILD ABUSE AND NEGLECT[1]
- ↓ 56% REDUCTION IN ER VISITS FOR ACCIDENTS AND POISONINGS[6]
- ↓ 67% LESS LIKELY TO EXPERIENCE BEHAVIORAL AND INTELLECTUAL PROBLEMS AT AGE 6[2]
- ↓ 72% FEWER CONVICTIONS OF MOTHERS (MEASURED WHEN CHILD IS 15)[1]
- ↓ 35% FEWER HYPERTENSIVE DISORDERS OF PREGNANCY[4]
- ↑ 82% INCREASE IN MONTHS EMPLOYED[3]

MARATHON COUNTY

Table 1. Expected Life Status and Financial Outcomes When First-Time Low-Income Mothers Receive Nurse-Family Partnership Home Visitation Services in Wisconsin

Outcome	Change
Smoking During Pregnancy	25% reduction in tobacco smoked
Complications of Pregnancy	32% reduction in pregnancy-induced hypertension
Preterm First Births	15% reduction in births below 37 weeks gestation (21 fewer preterm births per 1,000 families served)
Infant Deaths	47% reduction in risk of infant death (2.9 fewer deaths per 1,000 families served)
Closely Spaced, High-Risk Pregnancies	37% reduction in closely spaced, high-risk pregnancies within 15 months postpartum during 4 years after the first birth
Very Closely Spaced Births	25% reduction in second births within 15 months postpartum
Subsequent Preterm Births	30.7 fewer subsequent preterm births per 1,000 families served
Breastfeeding	12% increase in mothers who attempt to breastfeed
Intimate Partner Violence	17% reduction in assaults, prenatal to child age 5
Child Maltreatment	32% reduction in child maltreatment through age 15
Childhood Injuries	33% reduction in injuries treated in emergency departments, ages 0-2
Language Development	40% reduction in language delay; 0.14 fewer remedial services by age 6
Youth Criminal Offenses	25% reduction in crimes and arrests, ages 11-17
Youth Substance Abuse	55% reduction in alcohol, tobacco, & marijuana use, ages 12-15
Immunizations	13% increase in full immunization, ages 0-2
TANF Payments	7% reduction through year 13 post-partum; no effect thereafter
Food Stamp Payments	10% reduction through at least year 15 post-partum
Person-months of Medicaid Coverage Needed	8% reduction through at least year 15 post-partum due to reduced births and increased program graduation
Costs if on Medicaid	7% reduction through age 18
Subsidized Child Care	Caseload reduced by 3.0 children per 1,000 families served

Nurse-Family Partnership® (NFP) offers significant benefits to the families it serves and significant cost savings to society and government funders. Based on a review and analysis[1] of **more than 40 NFP evaluation studies, including randomized controlled trials, quasi-experimental studies and large-scale replication data**, Dr. Ted Miller of the Pacific Institute for Research and Evaluation predicts that when NFP achieves scale in Wisconsin, it can produce the following outcomes:

- Smoking in pregnancy ↓25%
- Pregnancy-induced hypertension ↓32%
- Closely spaced births (15 months postpartum) ↓25%

- Emergency department use for childhood injuries ↓33%
- Full immunization ↑13%
- Language delay ↓40%

- First pre-term births ↓15%
- Infant mortality ↓47%
- Moms who attempt breastfeeding ↑12%

- TANF payments ↓7% (13 years post-partum)
- Person-months on Medicaid ↓8% (15 years post-partum)
- Costs if on Medicaid ↓7% (through age 18)

Western Wisconsin Nurse-Family Partnership Consortium

2020: Positive Outcomes for Chippewa, Dunn, & Eau Claire Counties

Nurse-Family Partnership® (NFP) is a community health program that helps support first-time moms-to-be. Each mother in NFP partners with a trained nurse to receive home visits, starting in early pregnancy through the baby's second birthday. They achieve their most important goals of keeping children healthy and safe and improving the lives of moms and babies. Mothers, babies, families, and communities all benefit.

COVID-19 & NFP

2020 was a historic year with the onset of the COVID-19 Pandemic, which transformed our program to 100% telehealth visits. The NFP National Service Office recognized the critical need for the nurses to stay in touch with their clients. NFP contracted with Verizon to provide cells phones & a cell plan for any client in need. We had 22 clients that participated and were able to maintain contact with their nurse throughout the pandemic. All our nurses were pulled into COVID-19 response efforts throughout 2020, all while continuing with their NFP caseload. We learned many valuable lessons, telehealth being one, that we will carry into 2021 and beyond.

Our Families

Families Served	139
Babies Born in NFP	116
Graduates	37
Total Visits	1,544
Telehealth Visits	1,078

"I didn't know what love was when I met you. I thought I would love the baby in my belly--but I wasn't sure I would know how."

"Perseverance. That is what I feel like I have gained with the support of the program. No matter what, I am strong enough to get through the tough times, for myself and my son."

"My mental health is really important."

Return on Investment

NFP Program

$60,428 per family served

6.4 to 1 benefit to cost ratio

Miller 2015d*

Model Comparison

Pre-natal, Post-natal Care Program Comparison	Start Right	NFP
Agency providing service	MCHD and Children's Wisconsin	MCHD only
Uses contractual assistance	Yes-Children's Wisconsin	No
Ages served	Pregnancy up to age 5	Pregnancy up to age 2
Primigravida or Multigravida (First pregnancy only or multiple pregnancies)	Multigravida (Multiple pregnancies)	NFP participants primigravida only (First pregnancy only) MCHD has supports for mothers in subsequent pregnancies if eligible through Pre-natal Care Coordination, another model that is billed through Targeted Case Management

MARATHON COUNTY

Model Comparison

Pre-natal, Post-natal Care Program Comparison	Start Right	NFP
Supervision	MCHD one supervisor to three nurses/Children's Wisconsin has independent supervision	One supervisor to three nurses, shared cost of clinical supervision through the consortium
Evidence based Model	MCHD First Steps-no Children's Wisconsin-yes (Healthy Families of America)	Yes (including longitudinal studies), NFP is considered a statistically significant program with proven outcomes
Data Collection	MCHD collects data Children's Service Society provides reports	NFP would provide support on local data collection
Return on Investment	Unknown per UniverCity evaluation	$60,428 per family served

Model Comparison

Pre-natal, Post-natal Care Program Comparison	Start Right	NFP
FTEs	MCHD's Start Right program has 2.54 public health nurses (BSN), 1.23 FTE administrative support Children's Wisconsin funds 10.96 FTE (0.43 FTE Manager, 1.5 FTE Prevention Supervisor, 9.03 FTE Family Educators)	Existing MCHD staff would be repurposed from Start Right activities to NFP. 1.9 FTE Public Health Nurses (BSN) 0.7 FTE Administrator 0.5 RN Supervisor (BSN or higher) 0.5 FTE Administrative Assistant
Education Required	Home visitors need some college education	BSN level nursing staff required for home visiting.
Number of families served	66 (2018)	50 (2024)
Estimated Marathon County cost per family	$17,372 per family	$10,273 per family

Summary

Marathon County Health Department is changing its pre and post-natal home visiting model from Start Right to NFP starting on January 1, 2023.

- Cost savings to the county
- Current demand would be met within our community
- Model has information on ROI and supporting longitudinal studies
- Children and families will continue to have beneficial home visiting services delivered by qualified nurses

Sexually Transmitted Infection Update

8-2-22

Eileen Eckardt, RN BSN
Director of Family Health & Communicable Disease

Becky Mroczenski, RN BSN
Communicable Disease Manager

Marathon County Health Department

Sexually Transmitted Infections

- Sexually Transmitted Infections (STIs) are the most common disease reported in Marathon County
- Specially trained public health nurses follow up on STIs reported to our department
- Follow up consists of contacting the person with the infection and:
  - Assuring they've accessed appropriate treatment
  - Providing education on the disease, harm reduction, and eliciting contacts
  - Assure contacts have been notified they've been exposed and recommending evaluation (by case or anonymously)

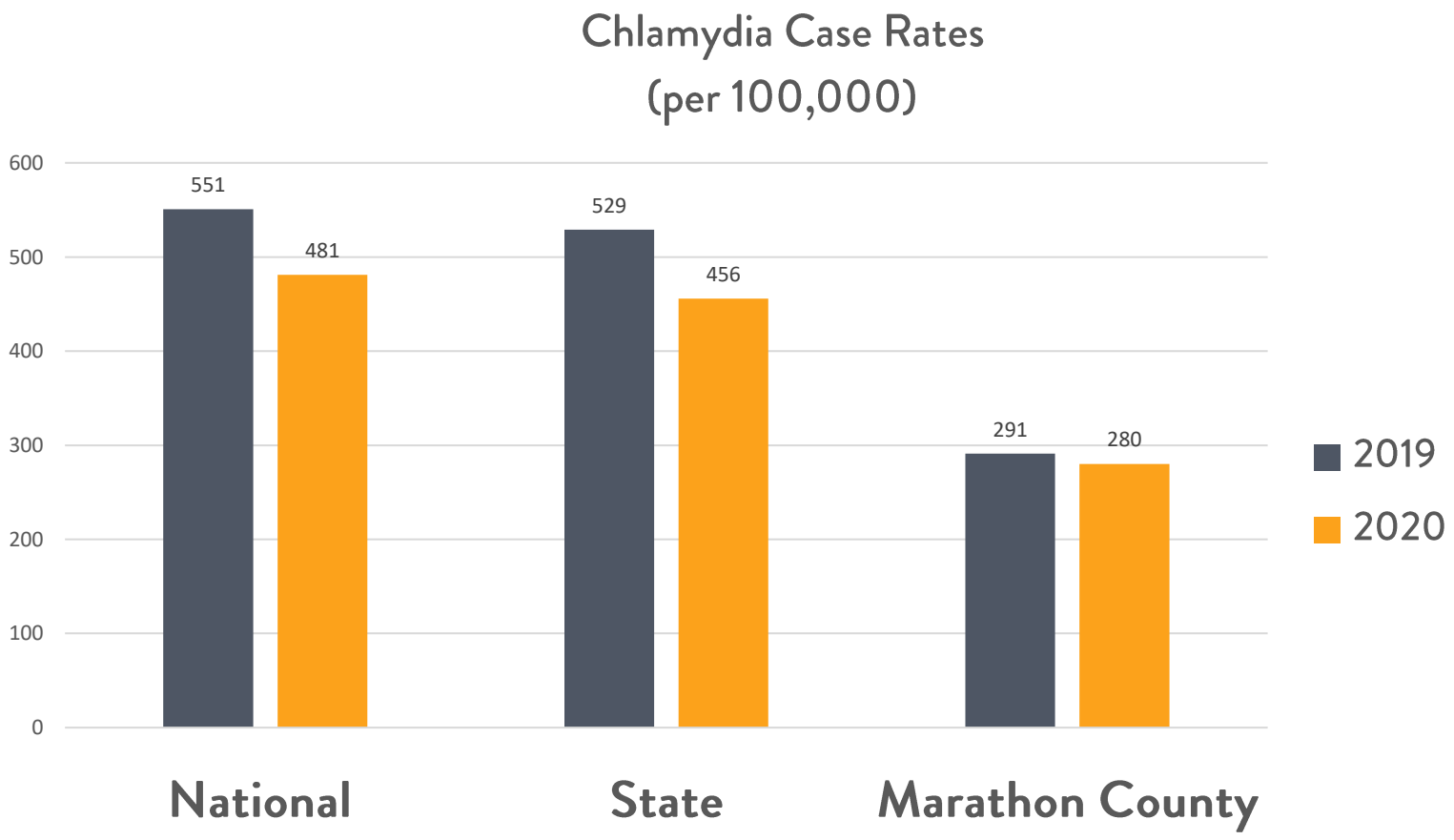
Why is Follow Up of STIs Important?

- Untreated STIs can cause permanent damage to the reproductive organs of both men and women.
- Some diseases can cause ectopic pregnancies (pregnancy outside of the uterus) which can be fatal for a woman if not treated appropriately.
- Infants can become infected with diseases that can cause serious health issues.
- People who have had sexual contact with the person with disease can be notified and seek appropriate testing and treatment if necessary.

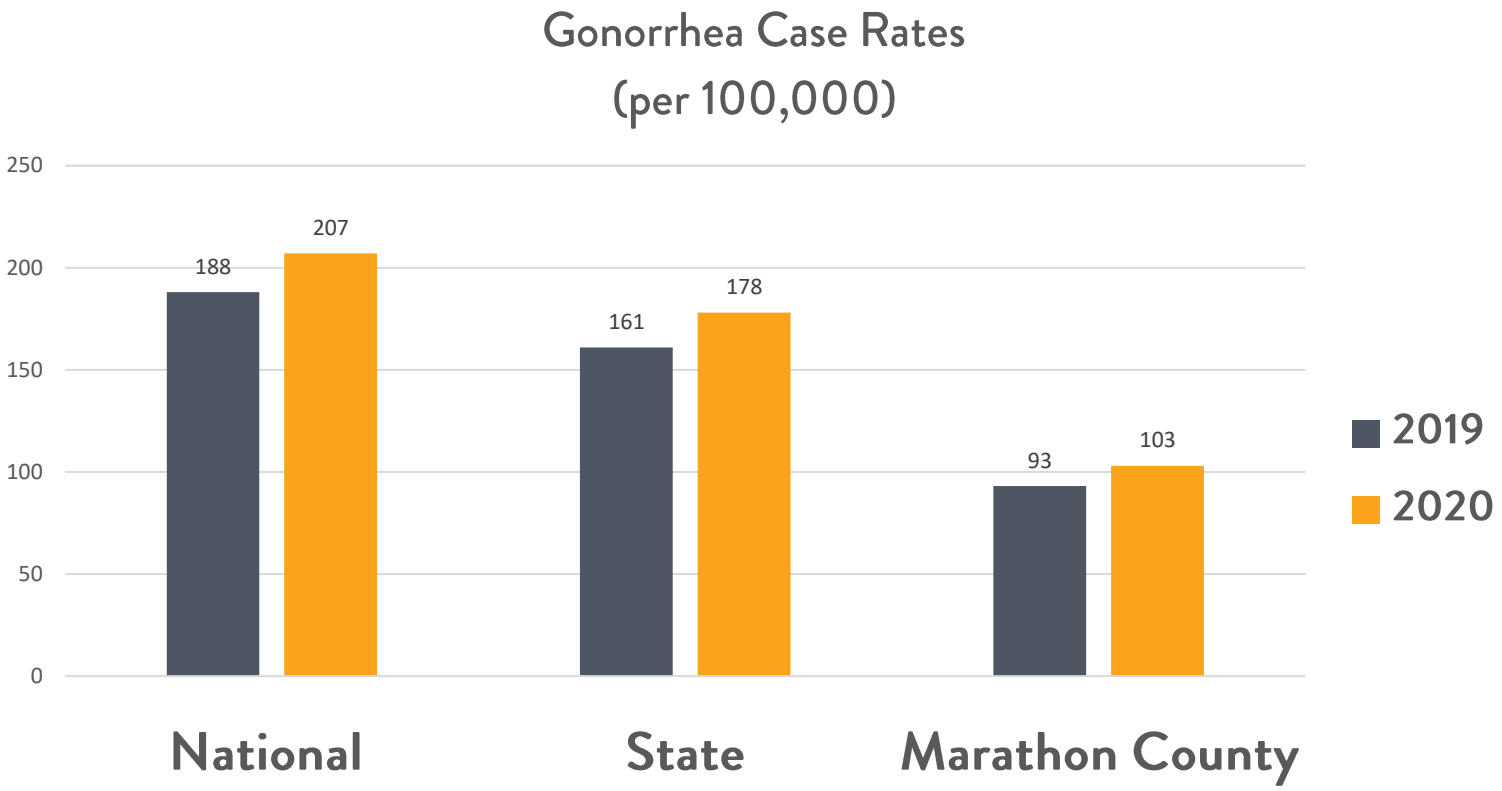
https://www.cdc.gov/std/statistics/2020/impact.htm, Sexually Transmitted Diseases - Information from CDC

MARATHON COUNTY

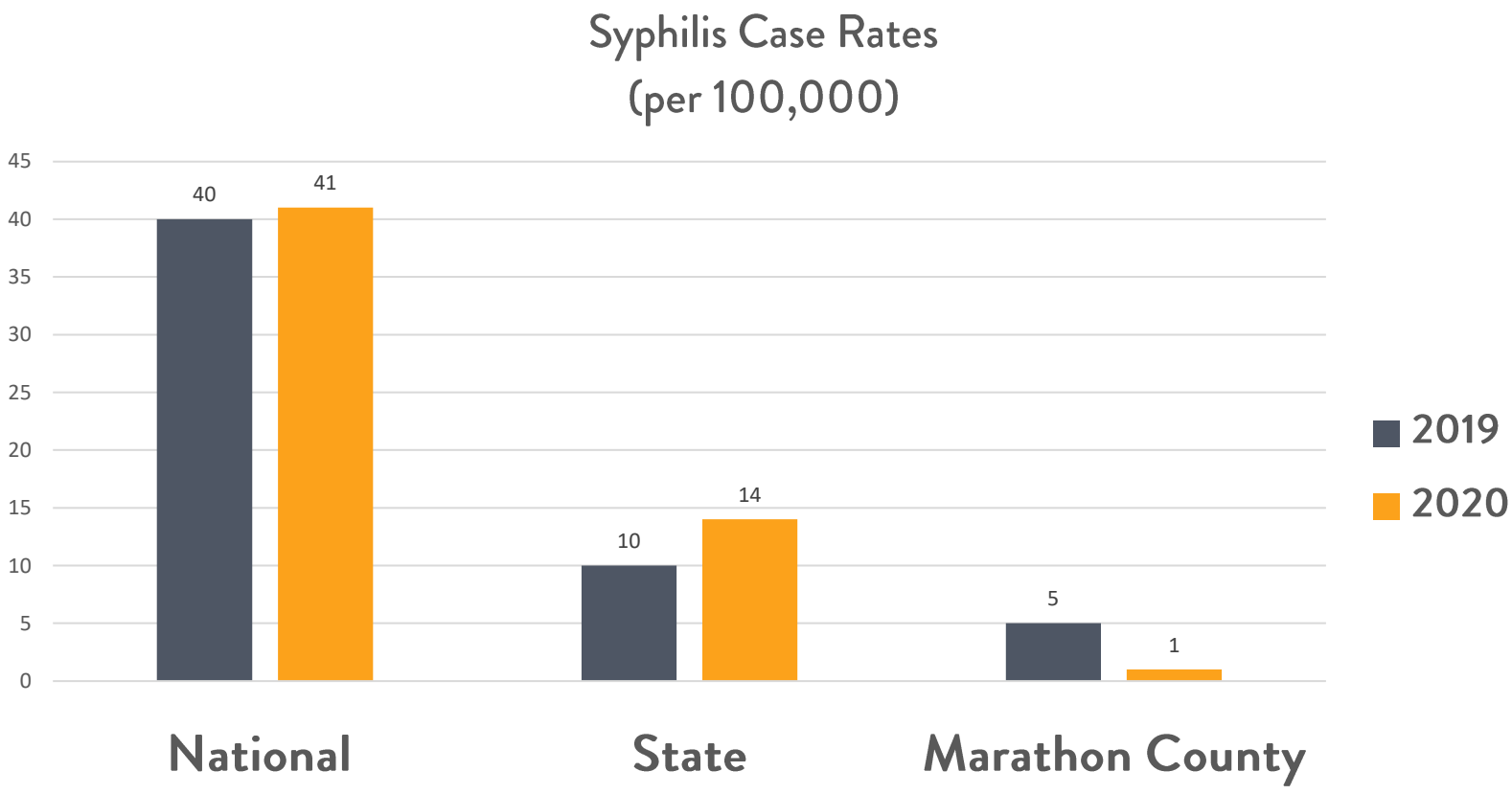
Chlamydia


Chlamydia Case Rates
(per 100,000)
600
500
400
300
200
100
0
551
481
529
456
291
280
National
State
Marathon County
2019
2020

Gonorrhea


Gonorrhea Case Rates
(per 100,000)
250
200
150
100
50
0
188
207
161
178
93
103
National
State
Marathon County
2019
2020

Syphilis


Syphilis Case Rates
(per 100,000)
45
40
35
30
25
20
15
10
5
0
40
41
10
14
5
1
National
State
Marathon County
2019
2020

Pandemic Impacts

(2020 National Data)

Data shows a dip in diagnosis of most diseases during home quarantines.

At the end of 2020 Chlamydia cases dropped by 13%, Syphilis cases increased by 7% and Gonorrhea cases increased by 10%.

Gonorrhea and Syphilis surged afterwards even though:

- People lost jobs and insurance
- Limited resources for testing because healthcare resources were diverted to Covid.

Syphilis and Gonorrhea can be painful and have visible symptoms that may prompt people to get checked out sooner than with Chlamydia.

More disease means more complications for adults and infants.

Marathon County's numbers stayed relatively stable.

https://www.cdc.gov/std/statistics/2020/impact.htm

MARATHON COUNTY

Marathon County's Role

Direct Service

Follow up on reportable diseases to assure treatment, encourage contact notification, and provide education (per state statute).

Provide STI services (testing, treatment) at Marathon County jail for inmates who sign up (voluntarily).

Community Level

Community surveillance of reportable diseases

- Monitor for trends
- Address gaps in services

Outreach to health care providers regarding treatment changing treatment information

Provide education to medical students and health care providers regarding:

- Tuberculosis diagnosis and management
- Hepatitis B, C, HIV, and Harm Reduction education

Provide classes at the Marathon County jail for inmates regarding STIs, Harm Reduction and contraception.

Questions?