PROVIDING IMMEDIATE SUPPORT

Year 2 Report of United Way of Central Maryland's ON TRACK 4 SUCCESS

Early Warning Response System Program

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EXECUTIVE SUMMARY

UNITED WAY OF CENTRAL MARYLAND (UWCM) PARTNERED WITH THE EVERYONE GRADUATES CENTER (EGC) AT JOHNS HOPKINS UNIVERSITY TO IMPLEMENT THE ON TRACK 4 SUCCESS (OT4S) PROGRAM, WHICH PLACES EARLY WARNING RESPONSE SYSTEMS IN SCHOOLS IN UNDER-RESOURCED CENTRAL MARYLAND NEIGHBORHOODS.

Early warning response systems enable schools to 1) monitor student data to identify those who are off the path to high school graduation and school success, 2) organize a team of staff to match interventions to identified students, and 3) implement and monitor interventions. Such systems are associated with improved levels of student attendance and course performance (Davis, Mac Iver, Balfanz, Stein, & Fox, 2018; Mac Iver, Stein, Davis, Balfanz, & Fox, 2019).

This report provides a detailed analysis of the second year of implementing the OT4S program in Baltimore City Public Schools, which expanded to include one new school (Benjamin Franklin High School) as well as additional grades served at the pilot school (Maree G. Farring Elementary/Middle School). It should be noted that UWCM also expanded the program to include Anne Arundel County Public Schools and worked with 7th graders at Meade Middle School. Data is not fully available for that effort, however; therefore, this report will focus on program implementation in Baltimore City only.

SIGNIFICANCE

Research shows that school performance, particularly at the high school level, has a significant impact on adolescents' future success in life. Adults who do not graduate from high school earn less income, have lower health and life expectancy, and are more likely to be involved in the criminal justice system than those who have graduated from high school (Depaoli, Balfanz, & Bridgeland, 2016). Dropping out of high school may also adversely affect future job performance. Evidence from labor market analysis suggests that dropout students have higher rates of unemployment: 7.7% compared to 5.3% for high school graduates (Bureau of Labor Statistics, 2017); 88% of job openings require at least a high school diploma or above (Carnevale, 2013). Education is clearly one of the leading predictors of success in a young person's life. Youths with less than a high school education or GED face a 346% higher risk of experiencing homelessness than their peers (Voices of Youth Count, 2017). Several studies have shown that behavior in school may also contribute to future success in life. A recent life span study, which controlled for parental socioeconomic status, found that having higher interest in school was related to higher educational attainment, occupational prestige, and income at both 11 years and 50 years after high school (Spengler, Davmian, & Roberts, 2018). Finally, students' performance and educational experiences during middle school

shed light on their success or failure in high school. A study of middle school performance finds that attendance rates have a relationship with on-time high school graduation: students in the middle grades who are absent less than 20% of the school year display a lower rate of core course failure and grade retention (Balfanz, 2009).

APPROACH

In Baltimore City, the overall graduation rate is 71% (2016-17 school year), much lower than the Maryland average of 87.8%. Thus, interventions that work in other school systems in Maryland or throughout the country may not adequately serve Baltimore's unique population. This disparity suggests that interventions specific to Baltimore's students are needed. Studies have shown that the early warning indicators of attendance, behavior, and course performance can be used to identify students who are at risk of dropping out of high school, with high predictability even in 6th grade (Allensworth, 2013). A recent national survey indicates that at least half of American high schools use an early warning system that monitors and flags students with early warning indicators (U.S. Department of Education, 2016). However, just identifying such students is not enough. Early warning response systems (EWRS) go further, combining consistent monitoring of early warning indicators with appropriate interventions to lead students back onto the path of graduation.

UWCM developed OT4S to build school capacity to identify students at risk of dropping out and intervene to get them back on track to graduation and school success, based on a model developed by the EGC. Like most early warning systems, OT4S uses the proven predictors of attendance, behavior, and course performance to identify students at risk of dropping out. A cross-disciplinary team of UWCM staff, teachers, and other school staff then work together to identify and deliver interventions to get these students back on track.

EARLY WARNING SYSTEM MODELS

Best practices related to student data, early warning response system team meetings, and tiered interventions, as identified by the EGC at Johns Hopkins University (Davis & Liljengren, 2012), are described here.

ACCESS TO CURRENT STUDENT DATA

Response systems depend on the quality of early warning indicator data available to those flagging and discussing off-track students and making intervention decisions. Appropriate data access includes:

- Teachers and staff have access to both school- and student-level reports.
- Student reports include (at a minimum) data on attendance, behavior, and course performance for every student in the grade or in a particular teacher's classes.
- Team members receive this information on an ongoing basis.
- School-level reports show indicators in aggregate, to help identify patterns at school, grade, and/or team levels.

EARLY WARNING RESPONSE SYSTEM TEAM MEETINGS

Each early warning response team meets weekly or bi-weekly to discuss student indicators and to match interventions to individuals or groups of students. (These meetings will be referred to as Early Warning Indicator—EWI—meetings throughout this report). Teams may include core subject and special education teachers, administrators, counselors, social workers, the school nurse, and/or other staff who work with the students identified for support.

During the team meeting, the team works off a list of focus students who have early warning indicators such as poor attendance, behavior, and course performance and discusses information they know about the student as well as their opinions on what might be keeping the student from achieving. This discussion lasts about five minutes per student (depending on the circumstances) followed by the team identifying an appropriate intervention. Giving a set time limit for discussion helps keep team meetings on track and ensures that all students on the focus list are matched to an intervention. As the interventions are set, team members volunteer to be the champion to make sure that the student receives the intervention and to report back during a future meeting. Once teams have been in place for a few weeks, the team builds in

time for check-ins to discuss what interventions have or have not been working. As new data is examined, more students may be added to the list while other students may be removed.

TIERED INTERVENTIONS

Timely interventions in response to early warning indicator data are the key to getting students back on track in an early warning response system. The first step toward selecting appropriate interventions is identifying resources currently available in the school or community. The EGC suggests creating a resource map of possible interventions, shown on a grid that categorizes them as school- or grade-wide interventions (Tier 1), targeted interventions for small groups of students with similar indicators (Tier 2), or intensive individual interventions for focus students (Tier 3); interventions should be further categorized as addressing attendance, behavior, or course performance indicators. Maintaining a list or map of interventions, and adding to it over time, prevents overuse of only one or two interventions.

For further information see: Using data to keep all students on-track for graduation: Team Playbook, http:// new.every1graduates.org/team-playbook/

FINDINGS FROM THE PILOT YEAR

UWCM used early warning response system research to develop the OT4S program. In the pilot year (School year 2016-17) at MAREE G. FARRING Elementary/ Middle School (MGF), UWCM hired a social worker to manage and track interventions from the early warning response system, participate in team meetings, and suggest ways team members could work with students to address behavioral issues. In addition, UWCM hired a site manager to develop a team meeting protocol, extract student-level data for reports, track meeting notes and intervention updates, and serve as a liaison between school teachers, leadership, and district contacts working with the OT4S team. Both of these individuals, the UWCM social worker and site manager, were embedded in the school alongside school staff.

The UWCM team launched the program in fall 2016 to work with grades 4 and 6 at MGF and provided professional development during the time scheduled for the OT4S meetings. EGC was contracted to train UWCM staff in the model so they in turn could train the school staff and gradually release responsibility for the program to the schools. When each school had fully adopted the model and could sustain the program with light support, UWCM would direct its resources to support another school.

Findings from the Year 1 report suggested that:

- At the OT4S school, students in the participating grades showed significantly better behavior and course performance in English and math than students in non-participating grades.
- The OT4S program met expectations for more than 50% of best practices in identifying students for support, more than 80% of best practices for effective team meetings, and more than 25% of best practices for student interventions.
- All interviewed teachers expressed support and enthusiasm about the OT4S program.
- Of the students flagged as off track in the first semester, 25% were on track by the second semester; an additional 35% improved in at least one indicator.
- Students who participated in UWCM interventions showed increases in course performance.

YEAR TWO GOALS

One of UWCM's goals in Year 2 (school year 2017-18) was to continue its partnership with Baltimore City Public Schools (BCPSS) and program implementation in the first pilot school to document changes that occurred in a second year of implementation. Because of the first school's early success, BCPSS leaders were eager to expand the project to an additional BCPSS school and add additional grade levels to the pilot school. They anticipated that the experience gained from the pilot would help increase capacity across schools (for example, ways to share data more efficiently). BCPSS and UWCM jointly decided to select a high school as the second program school.

YEAR TWO KEY FINDINGS

1. OT4S PROGRAM WAS STRONGLY IMPLE-MENTED IN BOTH SCHOOLS.

According to recent research from the American Institutes for Research (AIR, Faria et al., 2017) and Johns Hopkins University (Davis et al., 2018), it is difficult for schools to maintain high levels of fidelity in implementing early warning systems. The OT4S teams met many of the best practices for student identification, team meetings, and interventions. The challenges the OT4S program faced, such as a large proportion of students with high needs and difficulty finding time for teams to meet, are typical of the difficulties faced by those building early warning systems across the nation.

2. OT4S TEAMS IN THEIR SECOND YEAR OF IMPLEMENTATION (PILOT SCHOOL) HAD THE BEST OUTCOMES.

As previous studies have shown (Davis et al., 2013; Davis et al., 2018; Faria et al., 2016), early warning system implementation is challenging due to its complexity (e.g., the number of people who have to buy into the process, coordinating schedules, and access to student data). However, this study found much higher improvement rates for the students in the grades that have been in the program the longest (grades 4 and 6 at MGF). This suggests that it may be advisable for the UWCM to work with each new school for at least two years.

3. TARGETED INTERVENTIONS MOVED A LARGER PERCENTAGE OF FOCUS STUDENTS FROM FAILING TO PASSING (COMPARED TO ALL STUDENTS).

Students in small group interventions, such as the math tutoring and running groups, as well as the students who received focused interventions, such as meeting with a teacher or counselor, improved their grades and behavior over the course of the school year. Some interventions, such as the math tutoring group, helped students improve both behavior marks and grades. This is consistent with previous research showing that schools that implement interventions well have significantly lower levels of chronic absenteeism and had more students who passed their 9th grade courses (Davis et al., 2018).

4. STUDENTS IN ELEMENTARY AND MIDDLE SCHOOLS MAINTAINED THEIR ACHIEVEMENT GAINS THROUGHOUT THE YEAR. THIS WAS NOT THE CASE FOR HIGH SCHOOL STU-DENTS.

The percent of students passing their courses over the year remained around 80-90 percent for students in **MAREE G. FARRING**; however, the percent passing decreased in **BENJAMIN FRANK-LIN** from 60-80 percent passing in the first quarter to 40-60 percent passing in the fourth quarter. This decline in course passing is common among high school students in high-needs districts, who, in general, have worse attendance and behavior than elementary and middle school students.

At both schools, the level of need was extremely high, but this was especially true for **BENJAMIN FRANKLIN HIGH SCHOOL**, where 75% of students failed at least one major course in the first three quarters of the year; approximately 347 students had an off-track indicator for course grades alone. The performance slump for 9th graders compared to elementary and middle school students is not surprising; research has shown an overall decline in GPA after the transition to high school (Benner, 2011; Roderick & Camburn, 1999; Seidman et al., 1996).

5. COLLABORATION WITH BALTIMORE CITY SCHOOLS TO OBTAIN QUICKER ACCESS TO DATA.

UWCM collaborated with Baltimore City Public Schools to establish a daily data feed which contributed greatly to a more efficient support system by ensuring data was as current as possible. Data was uploaded to a secure UWCM server within 24hours every weekday; the UWCM site manager manually downloaded it to access ontime student attendance and grade data. Overall, this report found the OT4S program on track and doing well compared to other programs implementing early warning systems. Although progress is slow, especially for high school students, research indicates this is to be expected due to the complexity of early warning systems. It takes at least two to three years to develop these systems in schools, so progress might not be evident in the initial stage. Successes of the program included the number of students who recovered failing grades, both during each semester and in the course of the year.

These findings show that it is possible to improve academic, behavioral, and attendance outcomes for the neediest children in the districts served by United Way of Central Maryland. However, the high level of need in these schools is such that schools cannot do all of the work alone. The support provided by the United Way of Central Maryland is a key element to building school capacity to put these processes in motion.

METHODOLOGY

This formative evaluation examined Year 2 implementation of UWCM's early warning response system OT4S. The evaluation used team meeting observations, teacher and administrator interviews, and student data analysis from one elementary-middle school in Baltimore City (**MAREE G. FARRING**) and one high school in Baltimore City (**BENJAMIN FRANK-LIN**). The following table shows demographic data for the participating schools.

| TABLE 1. SCHOOL DEMOGRAPHIC DATA | | | | | |
|---------------------------------------|----------------|---------------------------|-----------------------|----------|---|
| SCHOOL | DISTRICT | PARTICIPATING GRADE(S) | FREE/REDUCED MEALS | MINORITY | CHRONICALLY ABSENT (2017-18) |
| Maree G. Farring Elementary/Middle | Baltimore City | 4 - 8 | 84% (free) | 68% | 32.9% (elementary) 37.4% (middle) |
| Benjamin Franklin High | Baltimore City | 9 | 87% (free) | 78% | 71.2%. |

The table below shows the percent of students in each school reaching proficiency in math and English on state tests, all at or below district averages. Mobility rates (the change in student enrollment related to students switching schools, also shown), were notably higher than district averages. These data were collected the year of program implementation.

| TABLE 2. DATA FROM THE 2017-18 SCHOOL YEAR | | | | |
|--|-----------------|--------------------|----------|--|
| SCHOOL/DISTRICT | PROFICIENT MATH | PROFICIENT ENGLISH | MOBILITY | |
| Districts: | | | | |
| Baltimore City Elementary | 17.8% | 17.2% | | |
| Baltimore City Middle | 13.6% | 20.0% | 29.9% | |
| Baltimore City High | 17.6% | 25.4% | | |
| SCHOOLS: | | | | |
| Maree G. Farring: Elementary | 10.3% | 8.4% | 34.6% | |
| Maree G. Farring: Middle | 10.0% | 24.3% | | |
| Benjamin Franklin High School | 17.7% | 24.4% | 39.2% | |

INTERVIEWS

A JHU professor not involved in implementation support and training conducted interviews in December 2017 and June 2018 with teachers, administrators, school social workers, and school-based UWCM staff to learn about the OT4S program at the beginning and end of the second year. Thirty-minute interviews took place at the schools (see appendix for interview questions); when interviewees granted permission, interviews were recorded for accuracy.

OBSERVATIONS

OT4S school teams were observed in spring 2018, each lasting between 35 and 45 minutes. Running notes taken during the meetings provided information later summarized on team member engagement, number of students discussed, and interventions assigned.

STUDENT-LEVEL DATA

BCPSS provided student attendance, behavior, and course performance data for school year 2017-18 for grades participating in the program; BCPSS also shared comparison data for the previous two school years. Attendance data included the number of days each student was enrolled, the number of days present, and the number of days absent. We divided the number of days present by the total number of days enrolled to determine percent attendance. Only students who were enrolled for at least 75% of the year were included in the analysis for each of the three years (2015, 2016, and 2017). UWCM provided data on interventions provided to Baltimore City students.



PROFESSIONAL DEVELOPMENTAND STARTUP

Expanding the program to additional grades in the initial pilot school went relatively smoothly, as the experiences of the previous year paved the way for broader implementation.

MAREE G. FARRING ELEMENTARY/MIDDLE SCHOOL

was in the second year of program implementation for the 4th and 6th grade teams and the first year of implementation for the 5th and 7th/8th grade teams. The UWCM social worker and site manager had built strong relationships with teachers and administrators in the previous year, facilitating a smooth roll out of the program in Year 2. Starting the new 5th grade and middle school teams was also easier since the UWCM social worker and site manager had been in the school the previous year; the 5th grade team had also observed a 4th grade meeting the previous spring. Before school began, other cross-grade meetings were held to share information on students and how best to support them. As it had the year before, training took place in September during scheduled team meeting times; the first discussions of students began in October. BENJAMIN FRANKLIN HIGH SCHOOL was new to the program. UWCM made a short presentation during a whole school faculty meeting in August before the school year began; formal professional development on EWI team meetings occurred two weeks into the school year, during the first scheduled meeting time. UWCM received data access one month after the school year began, due to a delay in district approval. While waiting for data access, the UWCM team maintained the format the school had used for the previous year's meetings. Several teachers expressed appreciation for the gradual transition from the old to the new format, especially since there were great similarities between them. Most were excited about the program and liked the meeting structure, although a few indicated that they would have appreciated more clarity on integration of the OT4S program with other mental health services and with resources already available at the school. The OT4S program also brought a schedule change: teams that had met during the day the previous year met after school in school year 2017-18.

BEST PRACTICES FOR PROFESSIONAL DEVELOPMENT: FINDINGS

Professional development of the On Track 4 Success program provided to teachers, administrators, and school support staff, mainly during the first team meeting in September, explained how the program worked. However, since a United Way social worker and site manager were in every team meeting, they were able to provide professional development to the team throughout the year. No specific recommendations for professional development were provided by the Everyone Graduates Center.

IDENTIFYING STUDENTS FOR SUPPORT

Consistent, timely access to student data enabled both schools to demonstrate consistently strong implementation of the best practices for identifying students for support.

During the pilot year at MAREE G. FARRING, access to student data had typically been delayed by as much as a week, requiring submission of a special request each week. To ameliorate this situation, UWCM worked with BCPSS to obtain an automatic data feed for Year 2 implementation. Data uploaded to a secure UWCM server within 24 hours every weekday, which the UWCM site manager manually downloaded to access on-time student attendance and grade data. The site manager compiled data on the students to be discussed at EWI meetings for the elementary and middle school teams each week, and on individual students about whom teachers had specific questions,¹ composing the list each Tuesday and sending it to teachers by Wednesday for the Thursday meeting. Data included students' attendance, behavior, and course performance, sorted by student status as new or previously discussed, as well as notes from any past discussions. The team examined aggregate data by grade each guarter, a practice they found helpful for identifying trends in attendance, academics, and behavior.

"SEEING ALL OF THE DATA, LIKE ATTENDANCE, ACADEMICS, BEHAVIOR, ACROSS THE BOARD IS REALLY HELPFUL. YOU CAN SEE A TREND . . . HOW IT GOES UP AND DOWN DEPENDING ON WHAT YOU DO." ~ TEACHER

The site manager at **BENJAMIN FRANKLIN** compiled the 9th-grade students' data and determined students to be included on the focus list. The UWCM social worker sent the list to teachers prior to team meetings, but some teachers did not check their email consistently or review the document in advance. The district's high school data fields did not always align with a given teacher's experience with a student. Team members suggested these discrepancies might be due to teachers' delay in entering grades into the system. Teachers also mentioned confusion around attendance: "daily attendance" allowed a student to be marked present who missed a portion of the school day (for example, a student who missed first period class every day was still marked as attending daily).

"I LIKE THE INFLUENCE OF HAVING DATA THAT IS PULLED WITH A PURPOSE. FOR EXAMPLE, AT OUR LAST MEETING WE SPECIFICALLY DISCUSSED STUDENTS WHO DID NOT HAVE AN ATTENDANCE ISSUE, BUT THEIR GRADES WERE POOR. BEFORE, WITHOUT THAT SPECIFIC DATA PULLED, WE WERE THROWING OUT NAMES OF CHILDREN WE WERE CONCERNED ABOUT AND THE CONVERSATIONS TENDED TO GO ON MORE TANGENTS." ~ TEACHER

Figure 1, on the next page, shows the OT4S implementation of each of the best practices for student identification. Both schools held EWI team meetings every two weeks, although their allocation of team member roles varied. Teams adopted all of the best practices for identifying students for support.

¹The Maree G. Farring administration decided team meetings would not discuss students with IEPs, to avoid duplicating services.

FIGURE 1: IMPLEMENTATION OF BEST PRACTICES FOR IDENTIFYING FOCUS STUDENTS

| BEST PRACTICES | MAREE G. FARRING ELEMENTARY/MIDDLE SCHOOL | BENJAMIN FRANKLIN HIGH SCHOOL |
|--|---|----------------------------------|
| Data is examined on a regular basis, at least every two weeks. | High Implementation | High Implementation |
| Student data is the most current data available on the day of an EWI team meeting, or a couple of days earlier if the data is sent out in advance. | High Implementation | High Implementation |
| Information on attendance, behavior, and course performance is included in the same report. | High Implementation | High Implementation |
| Data is examined at individual student level and as aggregated by class, grade, or school to examine patterns. | High Implementation | High Implementation |
| Data is color-coded or uses other easy ways to flag warning levels of on-track, sliding, and off- track, based on cutoff scores. | High Implementation | High Implementation |

BEST PRACTICES FOR STUDENT IDENTIFICATION: FINDINGS

The teams met each of the best practices for student identification: Student data was examined on a regular basis, student data was current, all early warning indicators were included in the reports, most looked at aggregate data quarterly or monthly, and all teams color-coded their data for tracking purposes.

TEAM MEETINGS

Team meetings for both the pilot teams (4th and 6th grades) and the newly added teams (5th, 7th, 8th grades) at **MAREE G. FARRING** occurred every two weeks on Thursday. Middle school teams met for 60 minutes, while elementary school team meetings were shorter (50 minutes) because elementary planning periods were shorter and teachers had to walk students to their classes. The UWCM site manager, UWCM social worker, and core teachers for each grade attended team meetings regularly, although one team member, a lead teacher, missed a few meetings due to other commitments. The school social worker and administrators occasionally attended meetings; a special education teacher² also attended most 4th grade team meetings.

Teachers on all teams shared responsibility for team roles such as facilitator and timekeeper, although the UWCM social worker usually took notes. One 4th grade teacher reported that her team did a better job of rotating the facilitator role than it had the previous year and it worked well. The timekeeper in each team kept the team on task and following the discussion protocol. New student discussions were usually allotted five minutes: two to three minutes to review quantitative data and share anecdotal data and three minutes to discuss and assign interventions. Quick check-ins were two minutes, unless the team needed to revisit an intervention, in which case they added two additional minutes. Teams either discussed new students first or began with check-ins, depending on their greatest concern. Teachers reported that teams were flexible enough to change the order of discussion, or even add a student not on the list when an emergency arose.

Team meetings at **BENJAMIN FRANKLIN** occurred after school on Wednesdays every two weeks, lasting for about

an hour. Because there were more than 120 9th grade students, instead of discussing all students with indicators at each meeting, the team discussed groups of students with the same issues (for example, students who had good attendance but were still failing). They also focused certain meetings on particular behaviors, such as bullying, to keep conversations from being redundant. They

"YOU HAVE TO BE PATIENT AND WILLING TO PARTICIPATE IN The program, because, like anything, it takes time to establish and get things working, but I think overall there is momentum and progress." ~ teacher

usually kept discussions of individual students short to have time for all of the students on the list. The UWCM social worker was usually the timekeeper and limited the team to 4 minutes per student, setting an alert at 2.5 minutes and showing cards to indicate "30 seconds left" and "10 seconds left." Most agreed that two minutes was enough time for a discussion, although discussion could go to five minutes for particular students. Some teachers felt it would be better to extend the time to seven minutes for some students. Time was an issue since teachers spent more time discussing those at the top of the list and less on those at the bottom; some teachers would have preferred listing students by priority of needs rather than alphabetically.

Those often in attendance included the 9th grade teachers, the UWCM site manager and social worker, the community school coordinator, the assistant principal, and a teacher intern. Most participated in each meeting; if

² Although teams did not always discuss special education students, special education teachers were welcome to attend meetings to provide a unique perspective on students, even those not in special education.

REGULAR MEETINGS CLEAR AGENDA The team meets on a A clear agenda is shared prior to the regular basis, at least every two weeks for at meeting. least 45 minutes. **SAME COHORT RESOURCE LIST** Team members are school staff who support the same cohort of student data students. before each TEAM CLEAR The team PROTOCOL includes key A clear teachers, counselors, **FIGURE 2** protocol is and used **BEST PRACTICES** consistently administrato 12 with every rs when FOR possible. student. **TEAM MEETINGS TAKE NOTES** 6 11 out of the 12 practices **ON TASK** were successfully One team implemented. Resource Lists member takes Members stay remain an area for growth. notes on the on task and nature, timeline, adhere to the $\left(\right)$ and champion agenda and for each protocols. intervention. 8 **POINT PERSON COLLABORATIVE &** The team assigns at **SOLUTION ORIENTED** least one member to Team members' be responsible for discussions are carrying out each ASSIGNED **FOLLOW UP** collaborative and intervention (a **INTERVENTION** solution-oriented. champion). The team follows up Each student is on prior interventions assigned an to evaluate their intervention approved effectiveness. by the team.

they missed a meeting, they sent a substitute, filled each other in, or asked the UWCM social worker to recap. There was also a review at the next meeting. One team member suggested that it might be a good idea occasionally to include the UWCM family stability coordinator, who manages a homeless prevention program, and a representative from the athletic department.

The assistant principal facilitated meetings and kept participants on task. She met with the UWCM site manager before each meeting to formulate the list of students. Although teachers were free to add names, some felt reluctant to do so since there were so many on the list to begin with. The UWCM site manager kept meeting notes on a spreadsheet and sent them out after the meeting, although this was not always consistent.

Figure 2 on the previous page highlights OT4S implementation of each of the twelve best practices for team meetings, indicating that eleven of the twelve practices were successfully implemented. Only one practice, development and use of a resource list, was not used consistently. The development and constant updating of a resource list is important to help teachers:

- Share resource ideas that might not be known to all teachers and staff in the school.
- Be open to trying possible new interventions, beyond the usual call home to a parent or tracking sheet.
- Develop new student groups and interventions that complement interventions already available at the school.

Steps in creating a strong resource list include starting early in the year, consistently adding to and updating the list, and referring to it during team meetings.

BEST PRACTICES FOR TEAM MEETINGS: FINDINGS

- Teams met many of the best practices for team meetings. For example, they
 - supported a shared cohort of students
 - met every other week for at least 45 minutes
 - circulated a list of focus students prior to the meeting
 - assigned team roles such as timekeeper and note-taker
 - adhered to an agenda
 - were solution-oriented
 - assigned an intervention to every student discussed
 - included time for follow-up
 - assigned a "champion" to carry out each intervention
 - included key teachers, counselors and administration when possible
- The only best practice not followed by many of the teams was the use of a resource list during the team meetings.

INTERVENTIONS

Teams faithfully identified, implemented, and monitored interventions to support students identified as struggling. However, the practice of creating, updating, and referring regularly to a list of possible interventions proved more challenging; one team creatively drew on available online resources, while others had a tendency to fall back on interventions they had used in the past.

Teachers at **MAREE G. FARRING** created a resource sheet of interventions at the start of the year to ensure common understanding of what was available at their school, but did not refer to it during meetings. Although they also said they appreciated the new perspective on interventions provided by UWCM and school social workers, they usually relied on interventions that had worked in the past, such as calling home or assigning a student to meet with a social worker. The team recorded interventions used previously with each student to assist in the selection of follow-up interventions. To determine an intervention's effectiveness, they checked in with each student before almost every meeting.³

In addition to having many more students than the elementary and middle schools, the high school team

"I THINK IT IS GOOD BECAUSE IT GIVES US TIME TO LOOK AT OUTCOMES — IF IT (AN INTERVENTION) WORKS WE CONTINUE AND IF NOT FIND SOMETHING ELSE. NORMALLY WE JUST KEEP DOING THE SAME THINGS THAT DO NOT WORK." ~ TEACHER

at **BENJAMIN FRANKLIN** faced a wider range of challenges than those found in the elementary and middle schools. Because of the large number of 9th graders facing challenges and the impracticality of scheduling individual sessions with all of them, the school and UWCM social workers created groups of students based on similar needs. The school social worker had at least 22 groups of students in various grades, including six social-emotional learning groups, four anger management groups, an athlete support group, multiple sexual trauma survivor groups, a coping skills group for girls, two grief groups, and an ESOL group with help from the ESOL teacher. The UWCM social worker also had several social-emotional learning groups and often worked with the school social worker. In previous years, the school social worker had formed student groups in late fall to early spring, because it took a while to get to know the 9th grade students (although for particular students he sometimes called their 8th grade counselors). The support of the UWCM team helped him initiate student groups more quickly, using information about students from team meeting conversations to determine what groups were needed.

The high school team found attendance difficult to address; even home visits did not work for the many students experiencing homelessness or living in temporary housing. The team also had trouble identifying positive behavior support incentives that worked for older students. However, despite these challenges, the team found the meetings to be very helpful for sharing interventions that could be effective for a given student. Since middle and high school classes do not give teachers a lot of time with individual students, sharing among teachers is especially important to gain a deeper understanding of students.

The figure on the following page shows the level of implementation of each of the best practices for student interventions.

³ One teacher thought so much checking might be excessive, and suggested waiting a month for an intervention to work.

FIGURE 3: IMPLEMENTATION OF BEST PRACTICES FOR INTERVENTIONS

| BEST PRACTICES | MAREE G. FARRING ELEMENTARY / MIDDLE SCHOOL | BENJAMIN FRANKLIN HIGH SCHOOL |
|---|---|----------------------------------|
| During team meetings, the team uses a resource map listing available intervention resources at the school. New resources and intervention ideas are added to the list throughout the year. | Low Implementation | Low Implementation |
| Resources on the map are organized by early warning indi- cators addressed (attendance, behavior, or course perfor- mance) and by tier (grade- wide, targeted, or intensive). | High Implementation | Low Implementation |
| Team members have tier 1 interventions (whole school or grade-level) in place, in conjunction with Tier 2 or 3 interventions. | High Implementation | High Implementation |
| Team members volunteer to take the lead on a number of student interventions so that responsibility is shared among team members. | High Implementation | High Implementation |

BEST PRACTICES FOR STUDENT INTERVENTIONS: FINDINGS

- Teams shared responsibility in taking the lead on student interventions.
- Teams had Tier 1 interventions (whole school or grade-level) in place, in conjunction with Tier 2 (small group) or 3 (individual) interventions.
- Although teachers in one team had created a resource list, most teachers could not recall making a list, nor did they consistently use a list in their team meetings.

INTERVENTION EXAMPLES

The table below shows the types of Tier 2 interventions that the OT4S program implemented and tracked.

| | TABLE 4. DESCRIPTION OF TIER 2 INTERVENTIONS TRACKED BY THE PROGRAM |
|------------------|---|
| GIRLS GROUP | Both MAREE G. FARRING and BENJAMIN FRANKLIN held girls' groups that focused on character development/ understanding of self, increasing self-esteem, building positive re- lationships between girls, and understanding healthy relationships with romantic partners. The groups also included psychoeducational components targeted at understanding brain development. |
| BOYS GROUP | At MAREE G. FARRING a small group focused on developing strong social and emotion- al skills, especially for boys of color, was championed by a 4th grade teacher and led by a paraprofessional and school support staff member. Open to boys in 4th and 5th grades by teacher nomination, the group met once per week after school for 60 minutes and ran from fall through May. |
| | At BENJAMIN FRANKLIN a small group met on Mondays for 45 minutes from January to May. The group was co-run by the school social worker and the OT4S social worker. The group focused on developing goals and motivation, and understanding character traits. |
| MATH GROUP | At MAREE G. FARRING a math tutoring group started out as combined 4th and 5th grade after-school group that met once per week for students who were struggling in math (usual- ly "sliding", on the cusp of either failing or doing better by next quarter). It was led jointly by 4th and 5th grade math teachers, but quickly separated into two grade-specific groups, led respectively by 4th and 5th grade math teachers. |
| RUNNING GROUP | At MAREE G. FARRING in the fall, two girls' running teams (one serving grades 3-5, one for 6-8) were coached jointly by UWCM and MGF staff. These groups were open to all female students on a first-come/first-serve basis. In addition to running and healthy lifestyle, teams focused on social-emotional support. |

The table below shows the types of Tier 3 interventions that the OT4S program implemented and tracked.

| TABLE 5. DESCRIPTION OF TIER 3 INTERVENTIONS TRACKED BY THE PROGRAM | | |
|---|---|--|
| 1 ON 1 COUNSELING | A social worker providing an individual student with counseling, and/or treat- ment for a mental health disorder. | |
| BEHAVIOR PROGRAM | Behavior plans were implemented. Individual student data on behavior was collected and students were offered a reward/incentive for improvement. | |
| CLASSROOM INTERVENTION | Classroom interventions included a variety of tactics and methods employed by one or more teachers, such as changing seats, offering classroom leader- ship opportunities, providing structured breaks, etc. | |
| PUSH-IN | An intervention where an outside individual (social worker or other support staff) directly intervened with a student in the classroom. | |
| CONSULTATION | An intervention in which an outside individual (social worker or other support staff) observed a class or student and made a plan with the teacher or other school staff about how to support the student involved. | |
| DAILY CHECK-IN | A daily check-in by a mental health professional was used for some students, but the school did not consider it formal counseling. | |
| INTENSIVE CASE MANAGEMENT | Intensive case management was provided by a social worker who provided families with referrals, advocacy with the IEP process, information about out-side resources, psychoeducation, and/or other parenting support. | |
| PARENT CALL/ CONFERENCE | Team members contacted parents/guardians regarding a student's atten- dance, behavior, or course performance, either in person or over the phone. | |
| REFERRAL | Teams referred students to an agency for support beyond the scope of the OT4S program/meeting, such as an outside agency or other school support staff. | |
| MOTIVATION TALKS | Team members met with a student to discuss progress and challenges, to determine the student's needs, to encourage or motivate the student to com- plete assignments or change behaviors, or to establish a plan of action with the student to improve academic success. | |

More information regarding interventions, including some that were not tracked by the program, was provided during interviews and is detailed below.

Both schools used forms of **POSITIVE INTERVEN-TION**, often a party (pizza, roller skating, movie), prize, or recognition for the class or homeroom with the highest attendance. The 6th-8th grade OT4S teams at **MAREE G. FARRING** developed a middle school-wide incentive called the "Fierce Falcon Club" for students who were successful in attendance, behavior, and coursework. Each quarter, Fierce Falcon students enjoyed teacher-designed classroom privileges, such as wearing a special Fierce Falcon T-shirt instead of the school uniform or dismissing first from classes; attended field trips and a pizza party; and received a quarterly certificate commemorating their achievement. **MAREE G. FARRING** also organized a student-planned talent show in December for students who had followed school rules, a reward that students enjoyed and teachers felt had effectively encouraged appropriate behavior.

Both schools used a form of **TRACKING SHEET** for certain focus students, which teachers signed as a record of the student's behavior in each class. Students checked in with a teacher or counselor at the start of the day and checked out by showing the tracking sheet and talking about their day. Students could earn incentives by submitting their sheets. Tracking sheets proved effective for younger students. Tracking sheets were less effective with high school students at **BENJAMIN FRANKLIN**, who did not seem motivated by them and often lost the sheets.

Both schools offered an **ACADEMIC COACH CLASS** during lunch or after school. This was the first year that the elementary/middle school added an academic coach class, held one day a week, for the 4th grade. The UWCM social workers and site managers often helped with these classes. Most agreed that they were very helpful for the students who attended.

Schools offered various **CLUBS OR GROUPS** for students. Social workers ran many of them, such as grief or social-emotional learning clubs. Others were run by teachers, such as game clubs or girls' or boys' clubs. Both the UWCM social worker and site manager provided support for an after school bi-weekly 4th grade boys' club at **MAREE G. FARRING**. Participants listened to guest speakers, played basketball, and worked on developing social-emotional skills in such areas as integrity, respect, and healthy conflict resolution. **MAREE G. FARRING** also had clubs to empower elementary and middle school students, such as girls on the run. **BENJAMIN FRANKLIN** had a weightlifting club.

"ONCE WE STARTED WITH THE GRADE LEVEL MEETINGS THEY EXPLAINED WHAT WE WOULD BE DOING AND IT FELT GOOD THAT THERE WAS GOING TO BE SUPPORT FOR THE 9TH GRADE SINCE IT IS SUCH A CRITICAL TRANSITION YEAR. WE HAVE A LOT OF SERVICES HERE BUT ONCE THEY GET SPREAD OUT TO ALL OF THE KIDS THERE ARE A LOT OF STUDENTS THAT DON'T RECEIVE THAT TARGETED ATTENTION THAT THEY NEED." ~ TEACHER which students met individually with adult volunteers to discuss their grades and set goals for the next quarter. The UWCM team members trained the volunteers prior to the conferences, providing them with a suggested set of questions to ask and format for the conversations to follow. Training of volunteers focused on how to establish rapport with students, share information about their own career paths when relevant, and provide guidance and strategies to support academic improvement. Volunteers also learned how to alert UWCM/school staff to students who might need additional social-emotional or basic needs supports from staff members.

"ONE THING I ENJOY ABOUT THE PROCESS IS THAT THE UWCM SOCIAL WORKER DOES HER OUTREACH WITH STUDENTS. IT IS ALSO NICE TO HAVE (THE UWCM SOCIAL WORKER) SPECIFICALLY TO CHAMPION SOME OF THE KIDS WHO NEED SPECIFIC SOCIO-EMOTIONAL SUPPORT. WITH AS MANY HATS AS WE WEAR AS TEACHERS IT IS NICE TO HAVE SOMEONE WHO CAN REALLY FOCUS IN ON THAT AND FOCUS ON 9TH GRADERS." ~ TEACHER

SOCIAL WORKERS AND COUNSELORS at both schools each had a caseload of students. At the time of her interview, the UWCM social worker at MAREE G. FARRING was meeting with about ten students during the week, most of them in middle school. She also did quick check-ins with an additional five students. Because of the high level of need among students at BENJAMIN FRANKLIN, the UWCM social worker relied primarily on group counseling, but also met with some students individually; at the time of her interview, she was meeting with at least six students regularly, and ran several social-emotional learning clubs.



GRADE ATTAINMENT OVER A YEAR

The figures below show the percent of students passing core courses over the four quarters of the school year for both schools. Although the percent of students passing their courses over the year remained around 80-90 percent for students in **MAREE G. FARRING**, the percent passing decreased in **BENJAMIN FRANKLIN**. This decline in course passing is common among high school students in high-needs districts, who, in general, have worse attendance and behavior than elementary and middle school students. Further, in high-needs schools, grades and GPA typically decrease over time. However, the elementary and middle schools show steady grades, and even improvement in some of the classes, suggesting that interventions may have prevented grade slide in these schools.





Figure 4: Percent of students passing core courses over the four quarters of the school year.

BEHAVIOR OVER A YEAR

The first two figures below show the number of students who received a good or adequate conduct mark on their report card over the four quarters of the school year for students in **MAREE G. FARRING**.

- Between 80 and 100 percent of **MAREE G. FARRING** students had consistently good conduct marks for three of the four courses throughout the year.
- Middle school students with good behavior in social studies dropped to 70% in quarter 2.

The third figure shows the percent of students who received no office referrals over the four quarters of the

school year for **BENJAMIN FRANKLIN**. This school did not provide conduct mark information.

• Only 60 - 80% of students at **BENJAMIN FRANKLIN** had no office referrals any given quarter.

Research indicates that behavior and effort often decline in the 9th grade due to a lack of adult monitoring and support (Allensworth, 2013); therefore, it is interesting that most of the behavior patterns of this school shows consistent behavior data, with few to no major shifts or worsening behavior over time.



Figure 5: Percent of students with good conduct over the four quarters of the school year.



Figure 6: Percent of students with no office referrals over the four quarters of the

school year.

ATTENDANCE FOR THE SCHOOL YEAR BY GRADE LEVEL AND INTERVENTION TYPE

The figure below shows the average yearly attendance at **MAREE G. FARRING** and **BENJAMIN FRANKLIN**.



Figure 7: Average attendance of students in elementary, middle, and high school.

The figure below shows the average yearly attendance at **MAREE G. FARRING** and **BENJAMIN FRANKLIN** for students who participated in particular Tier 2 interventions. The group with the highest attendance was the running group.



Figure 8: Average attendance of students in all Tier 2 interventions.

The figure below shows the average yearly attendance at **MAREE G. FARRING** and **BENJAMIN FRANKLIN** for students who participated in particular Tier 3 interventions. The referral group, generally the most challenged students, had the lowest attendance.



Figure 9: Average attendance of students in all Tier 3 interventions.

For tier 2 and 3 intervention descriptions please see pages 17 and 18 of this report. Tier 3 interventions had to be shortened for the graphs.

- 1 on 1 = 1 on 1 counseling
- Behavior = Behavior Program
- Class = Classroom Intervention
- Consult = Consultation
- Daily = Daily Check-In
- ICM = Intensive Case Management
- Parent = Parent Call/Conference
- Refer = Referral
- Student = Student Motivation Talks

RECOVERY OF GRADES AND BEHAVIOR OVER THE SCHOOL YEAR

GRADE LEVEL

GRADES

The table below shows the percent of students with failures in Math or English in Quarter 1, 2, or 3 (navy) as well as the percentage of those students who were failing in Quarter 1, 2, or 3, but passed both Math and English in Quarter 4 (coral). In other words, what percentage of students failing either math or English in the first 75% of the year were not failing in the last quarter?



Figure 10: Percent recovery rate for English and math grades by grade level.

Navy = Percent of all students failing English or Math once during the first 3 quarters. Coral = Percent of students represented in the navy column passing English or Math in the last quarter.

Elementary school students had the lowest number of Math or English failures during quarters 1-3, but the most significant recovery in that over 60% of those who had failed math or English during the first 3 quarters, were passing both by the end last quarter. Over 60% of the high school students failed either Math or English during at least one of the first three quarters of the year; less than 20% of these had recovered by the last quarter.

BEHAVIOR

The table below shows the percent of students who had a poor behavior indicator during quarters 1, 2, and 3, but back on track in Q4 (recovery). In other words, what percentage of students struggling with behavior in the first 75% of the year had no behavior flags in the last quarter? Like grades, poor behavior increased along with age of the students; elementary students' behavior was better than that of middle school students, and middle school students had better behavior than high school students. Elementary school students also had the greatest recovery rate on behavior over the course of the year.





Navy = Percent of all students with a behavior indicator (report card mark or office referral) once during one of the first three quarters. Coral = Percent of students represented in the navy column with no behavior indicator (report card mark or office referral).

TIER 2 INTERVENTIONS: IMPACT ON INDICATORS

GRADES

The table below shows the percent of all students failing in quarters 1-3 (navy) and the percent recovery (coral) of student receiving particular Tier 2 interventions. Students selected to be in these interventions were those who had at least one failure the first 3 quarters of the year. The two interventions that improved grades for the largest percentages of struggling students were the math and running groups.



Figure 12: Percent recovery rate for English and math grades by Tier 2 intervention.

Navy = Percent of students failing English or Math once during the first 3 quarters. Coral = Percent of students represented in the navy column passing English or Math in the last quarter.

BEHAVIOR

The table below shows the percent of students with a behavior indicator (navy) and percent recovery (coral) of student receiving particular Tier 2 interventions. Again, the math and running groups showed the largest percentages of recovered students.



Figure 13: Percent recovery rate for behavior indicator by grade level.

Navy = Percent of students with a behavior indicator (report card mark or office referral) once during one of the first three quarters. Coral = Percent of students with no behavior indicator (report card mark or office referral) in the last quarter after having had a behavior indicator at least once during the first three quarters.

TIER 3 INTERVENTIONS: IMPACT ON INDICATORS

GRADES

The table below shows the percent failing Math or English in quarters 1-3 (navy) and percent recovery (coral) of students receiving particular Tier 3 interventions. Sixty percent or more of students receiving Tier 3 interventions were failing Math or English at some point in the first three quarters of the year. Tier 3 interventions only managed to turn around 30-40% of these students; however, this percent change is remarkable given the high need level of students requiring Tier 3 interventions.



Figure 14: Percent recovery rate for English and math grades by Tier 3 intervention.

Navy = Percent of students failing English or Math once during the first 3 quarters. Coral = Percent of students represented in the navy column passing English or Math in the last quarter.

BEHAVIOR

The table below shows the percent of students with a behavior indicator (navy) and percent recovery (coral) of students receiving particular Tier 3 interventions. Around half or more of the students receiving these interventions had a behavior indicator at some point in the first three quarters of the year. The two interventions that resulted in improvement for about 60% of struggling students by the final quarter were classroom-based interventions and individual student conferencing.



Figure 15: Percent recovery rate for behavior indicator by Tier 3 intervention.

Navy = Percent of students with a behavior indicator (report card mark or office referral) once during one of the first three quarters. Coral = Percent of students represented in the navy column with no behavior indicator (report card mark or office referral) in the last quarter after having had a behavior indicator at least once during the first three quarters.



RECOVERY OF GRADES WITHIN A QUARTER

GRADE LEVEL

GRADES

The navy columns in the figure below show the percent of students who were failing Math or English on at least one of the four mid-quarter progress reports. The coral columns indicate the percent of students who had a failing mid-quarter grade, which turned into a passing grade by the end of the marking period for at least one of the four quarters. Again, the high school students had close to 80% failing at least math or English on at least one of the four mid-term progress reports. Elementary students had the highest level of recovery: more than 70% recovered at least one mid-term failure. The students in the two pilot grades (4th and 6th) had fewer students with failures in math and English, as well as more students recovering grades.



Figure 16: Percent recovery rate for English and math grades by grade level.

TIER 2 INTERVENTIONS

GRADES

The navy columns in the figure below show the percent of students who were failing math or English on at least one

of the four mid-quarter progress reports, categorized by the six different Tier 2 interventions tracked by the OT4S program. The coral columns indicate the percent of students who had a failing mid-quarter grade, which turned into a passing grade by the end of the marking period for at least one of the four quarters. Around 60% of students receiving any Tier 2 intervention had at least one grade recovery from mid-term to final grade. Without an intervention, many of these students would not have been able to recover this grade on their own.



Figure 17: Percent recovery rate for English and math grades by Tier 2 interventions

TIER 3 INTERVENTIONS

GRADES

The navy columns in the figure below shows the percent of students who were failing math or English on at least one of the four mid-quarter progress reports, categorized by the six different Tier 3 interventions tracked by the OT4S program. The coral columns indicate the percent of students who had a failing mid-quarter grade, that then turned into a passing grade by marking period grade for at least one of the four quarters. Around 55% of students receiving any Tier 3 intervention had at least one grade recovery from mid-term to final grade, although some Tier 3 interventions, such as ICM, had higher recovery rates. Without an intervention, many of these students would not have been able to recover this grade on their own.



Figure 18: Percent recovery rate for English and math grades by Tier 3 interventions.





FINDINGS AND RELATED DISCUSSION

The goal of this report is to detail findings on the implementation of the OT4S program and student outcomes during its second program year.

During this second year, United Way of Central Maryland expanded their work at one elementary/middle school in Baltimore City (**MAREE G. FARRING**) and added one high school in Baltimore City (**BENJAMIN FRANKLIN**).

FINDING #1: THE OT4S PROGRAM WAS STRONGLY IMPLEMENTED IN BOTH SCHOOLS

- The teams met each of the best practices for student identification such as examining current student data on a regular basis, including all early warning indicators in the reports, examining aggregate data quarterly or monthly, and color-coding their data for tracking purposes.
- Teams met all of the benchmarks for team meetings, such as meeting regularly, sharing an agenda ahead of time, staying on task, and adhering to an agenda and protocols.
- Teams met some of the indicators of best practices for interventions, such as including grade-wide interventions and sharing the responsibility for interventions among team members.

Discussion on Finding #1:

According to recent research from the American Institutes for Research (AIR, Faria et al., 2017) and Johns Hopkins

University (Davis, et al., 2018), it is difficult for schools to maintain high levels of fidelity for implementing early warning systems. For example, one of these systems, the Early Warning Intervention and Monitoring System (EW-IMS), details a 7-step process in developing school early warning teams, which includes establishing team member roles, use of an early warning data tool, review of early warning data, matching and monitoring interventions, and refining the early warning process. Compared to control schools, the program schools had fewer absences and course failures. However, the authors of the evaluation indicated that implementation was difficult during the first year: seven schools discontinued implementation, attendance at training sessions declined over the year from 97% to 59%, and only two schools reached a moderate or high level of implementation of the seven steps. Further analyses indicated that school staff had difficulty with the data tool, were not consistent in examining the data from the tool, and did not assign an intervention to all students showing an early warning indicator. Authors of the report indicated they believed that higher implementation could be achieved with a second implementation year.

Proponents of a second early warning indicator program developed at Johns Hopkins, the EWI team model, also examined their system in a randomized control design (Mac Iver et al., 2019).

Unlike the EWIMS evaluation, the EWI team model evaluation did not examine outcomes until after the early warning system had been in place for at least one year in a school. As with the EWIMS program, the evaluators of the EWI team model found significant positive impacts on attendance. Also similarly to the EWIMS program, the EWI team model schools had difficulty with implementation (Davis et al., 2018). Of the 20 schools, only 18 examined data weekly, 15 had early access to data, 9 held at least 2 meetings a month, 8 connected to parents, and 15 had an attendance incentive. <u>The main activity of the EWI teams</u> was regular team meetings; for which fewer than half were able to stay on track throughout the year.

Two challenges to starting an early warning system in a school include developing the system and helping teachers to use the system routinely (Rumberger et al., 2017). An abundance of research exists on the critical components of an early warning system; these are clearly outlined in the What Works Guide on "Preventing Dropout in Secondary Schools" (Rumberger et al., 2017). What is less clear, and significantly more challenging, is how to help staff members effectively and routinely use the system, especially in under-resourced high-poverty schools. External support is highly recommended but not sustainable (Davis et. al., 2017). If external staff or volunteers are available, they need to be vetted, trained, and monitored—a role that schools are ill-equipped to fill.

On Track 4 Success offers an alternative, middle-ground approach between an early warning system that provides little to no support to implementing schools and a system that is fully supported and implemented by a consortium of outside partners. The first is not likely to be successful and the second is not likely to be sustainable. On Track 4 Success addresses the challenges faced by each.

FINDING #2: TEAMS IN THEIR SECOND YEAR OF IMPLEMENTATION (PILOT SCHOOL) HAD THE BEST OUTCOMES

- Pilot teams at MAREE G. FARRING (4th and 6th grades) had fewer failing grades in quarters 1-3 and were able to move a larger percentage of students from failing at midterm to passing by the marking period than teams for the newly added levels (3rd, 5th, and 7th/8th grades).
- At MAREE G. FARRING, the 4th-grade team was better able to rotate the facilitator role among participants than they had the previous year, since they were familiar with the protocols.

Discussion on Finding #2:

An evaluation of the Johns Hopkins EWI team model by Mac Iver and colleagues in 2019 did not examine outcomes of their evaluation until the second year of the program. Their reason for waiting a year was the number and complexity of elements needed to be in place and coordinated for the early warning system to function. They also based this decision on findings from the earlier MDRC implementation study of "Diplomas Now," a Johns Hopkins program incorporating early warning indicators; that study did not find significant impacts until the second year of the program (MDRC, 2015).

Findings of this report indicate that a one-year program is insufficient; schools need several years to become familiar with the system and adapt it to their particular contexts. As previous studies have shown (Davis et al., 2012; Davis et al, 2018; Faria et al., 2016), early warning system implementation is challenging. However, this study found much higher improvement rates for the students in the grades that had been in the program the longest (grades 4 and 6 at **MAREE G. FARRING**). Not only did **MAREE G. FARRING** grades 4 and 6 teams show greater recovery of mid-term to final grades averaged over quarters, but those teams also met more criteria of best practices for early warning indicator systems.

Teachers and administrators of the pilot school expressed readiness to take on more responsibility for the EWI system, especially with occasional support from UWCM (e.g., every other month or so). This would be possible if UWCM selected new schools in geographic proximity to the earlier or "sustaining" schools: UWCM staff working in the new schools could check in occasionally at the sustaining schools.

These findings suggest that it may be advisable for the UWCM to work with each new school for two years at a minimum. According to Robert Balfanz in the Everyone Graduates Center, fidelity to any program is difficult in high needs schools where there is frequent staff turnover and a large proportion of students with high needs. Only 20% of schools can maintain some level of implementation without outside facilitation due to the high turnover rate. This experience suggests that OT4S schools should remain connected to a network with an opportunity for new staff to attend an annual training.

Research has shown the power of teacher networks in sustaining school improvement initiatives, especially in

high-needs districts that face additional challenges such as high teacher turnover, frequent changes in curriculum and instruction, and lack of resources (Schiff, Herzog, Farley, Ripple, & Iannuccilli, 2015). Out-of-school networks organized through universities or non-profit groups can help teachers expand their knowledge and find greater job satisfaction (Niesz, 2007; Schiff et al., 2015). Researchers noted, however, that forming a teacher network takes thoughtful design and distributed leadership.

In addition to networks, UWCM could develop and provide new tools to help schools effectively create and maintain OT4S teams that meet on a regular basis (at least once every two to three weeks). These might include a program guide to acquaint new team members with the OT4S model as quickly as possible, and agendas to help keep meetings on track.

FINDING #3: TARGETED INTERVEN-TIONS MOVED A LARGER PERCENT-AGE OF FOCUS STUDENTS WHO WERE FAILING TO PASSING

- Over 60% of students receiving targeted interventions such as 1 on 1 counseling, behavior plans, classroom interventions, daily check-ins, and intensive case management, were able to turn a failing progress report grade into passing on the final marking period grade for math or English for at least one of the four report cards.
- 100% of the students in the math and running groups who were failing math or English at some point in quarters 1-3 were passing in quarter 4.
- Some interventions, such as the math tutoring group was targeted for increasing math grades, but also helped students recover behavior marks as well as grades.

tions well had significantly lower levels of chronic absence and had more students who passed their 9th grade courses. The score related to the number of well-implemented interventions was as significant a predictor of outcomes as the total early warning system fidelity score. <u>Therefore,</u> no matter how well team meetings and data analysis are conducted, unless the team is implementing a number of interventions, there may not be improvement in attendance, behavior, and course performance. Having a wide range of interventions is important since interventions may have both direct and indirect outcomes.

Research from the Everyone Graduates Center found that tutoring groups, although meant to improve subject-specific grades, can improve student-teacher relationships, which increases student attendance and school motivation. It is the relationship building that helps improve attendance, rather than the content covered during tutoring.

On Track 4 Success assigns interventions to students during team meetings. In compliance with What Works Guide's recommendations, OT4S assigns a "champion", or advocate, to each intervention; this person is responsible for ensuring the implementation of the intervention and reporting on its impact at the next team meeting. Assigning a champion ensures that the majority of interventions are implemented and progress reported.

The quality and diversity of interventions varies significantly across OT4S schools and depends on the resources available at each school. A list of well-tested and commonly used interventions can reduce the amount of time teams spend identifying and assigning interventions in meetings and increase the efficacy of selected interventions (Davis, Herzog, & Legters, 2013; Rumberger et al., 2017). The intervention list is even more effective if it is customized to reflect local conditions or cultural, racial, and ethnic distinctives (Balfanz, Herzog, & Mac Iver, 2007).

Discussion on Finding #3:

Research on early warning indicator systems has indicated that implementation of interventions may have a more direct impact on improved attendance and grades than other EWS tasks such as holding team meetings. Davis et al. (2018) showed that schools that implemented interven-

FINDING #4: STUDENTS IN ELE-MENTARY AND MIDDLE SCHOOLS MAINTAINED THEIR ACHIEVEMENT THROUGHOUT THE YEAR. THIS WAS NOT THE CASE FOR HIGH SCHOOL STUDENTS

- Average yearly attendance for high school students was much lower than those of elementary and middle school students.
- There was a drop in the percent of high school students passing their core courses over the four quarters of the school year, but there was no decline in performance for elementary and middle school students in the OT4S program.
- There was no decline in behavior for elementary, middle, or high school students in the OT4S program, although high school students generally had worse behavior than elementary and middle school students.

Discussion on Finding #4:

At both schools, the level of need was extremely high, but this was especially true for **BENJAMIN FRANKLIN**, where 75% of students failed at least one major course in the first three quarters of the year; approximately 347 students had an off-track indicator for grades alone. Adding attendance and behavior indicators left only a handful of students without any off-track indicators. Schools are not designed to meet this level of need and are typically overwhelmed by it; that is why support from UWCM is so critical.

The decline in performance for the 9th grade students compared to the elementary and middle school students is not surprising, given research that has shown a decline in GPA after the transition to high school (Benner, 2011; Roderick & Camburn, 1999; Seidman et al., 1996).

Poor school transitions may be to blame for a decline in student performance, especially in the 9th grade, and have been associated with increasing behavior problems (Graber & Brooks-Gunn, 1996) and high school dropout rates (Alspaugh, 1998; Akos & Galassik 2004), and decreasing GPAs (Isakson & Jarvis, 1999). Studies in Chicago (Allensworth, 2013) indicate that 9th grade course attendance is highly predictive of course performance, even more than test grades. Attendance rates also decline significantly after the transition to high school, with unexcused absences averaging 4 days per year in 8th grade but 16 in 9th grade. Declines in 9th grade academic and behavioral performance were not related to greater difficulty of high school work compared to 8th grade work, but to worsening student study habits due to less adult monitoring and support (Allensworth, 2013). An early warning system both monitors student attendance, behavior, and course performance, and offers a means of support through school resources and interventions.

An evaluation of Diplomas Now found that external partners (e.g., City Year) who provide additional staff to hold tutoring sessions after school were critical to the program's success (Davis, Herzog, & Legters, 2013). School staff do not have the time or resources to develop these relationships with external partners. This is especially true in Baltimore City where the majority of schools are Title I schools. United Way is uniquely positioned to fill this critical role. United Way works annually with over a hundred public agencies, non-profit organizations, community groups, and faith-based organizations. In 2019, United Way issued grants to over 50 non-profit and community organizations, received funding from over 50 private companies and foundations, and partnered with at least 18 different state and local agencies. United Way can use these relationships to identify external partners to provide interventions in OT4S schools.

CONCLUSION

Overall, this report found the OT4S program on track and doing well compared to other programs implementing early warning systems. Although progress is slow, especially for high school students, research indicates this is to be expected due to the complexity of early warning systems. It takes at least two to three years to develop these systems in schools, so progress might not be evident in the initial stage. Successes of the program included the number of students who recovered failing grades, both during each semester and in the course of the year.

These findings show that it is possible to improve academic, behavioral, and attendance outcomes for the neediest children in the districts served by UWCM. However, the high level of need in these schools is such that schools cannot do all of the work alone. The support provided by the UWCM is a key element to building school capacity to put these processes in motion.

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APPENDICES

The tables below show the details used for the fidelity ratings of each best practice.

NUMBER OF TEAMS MEETING EACH OF THE BEST PRACTICES FOR STUDENT IDENTIFICATION

| BEST PRACTICES | FIDELITY |
|--|---|
| Data is examined on a regular basis, at least every two weeks. | All teams met to examine data at least every two weeks. |
| Student data is the most current data available on the day of an EWI team meeting, or a couple of days earlier if the data is sent out in advance. | All student data was the most current data avail- able on the day of the meeting or a few days prior to the meeting. |
| Information on attendance, behavior, and course performance is included in the same report. | Attendance, behavior, and course performance were included in each team report, although be- havior data was not always updated. |
| Data is examined at individual student level and as aggregated by class, grade, or school to examine patterns. | One school specifically mentioned looking at ag- gregate data every month. The other two schools examined aggregate data quarterly. |
| Data is color-coded or uses other easy ways to flag warning levels of on-track, sliding, and off-track, based on cutoff scores. | All teams included some form of color coding for tracking, although not all schools could print in color. |

NUMBER OF TEAMS MEETING EACH OF THE BEST PRACTICES FOR TEAM MEETINGS

| BEST PRACTICES | FIDELITY |
|---|--|
| Team members are school staff who support the same cohort of students. | All teams had a shared set of students. |
| The team meets on a regular basis, at least every two weeks for at least 45 minutes. | All teams met every other week for at least 45 minutes. |
| A clear agenda is shared prior to the meeting. | All teams shared an agenda prior to each meet- ing. |
| A facilitator distributes a resource list and student data before each meeting. | The teams at one school discussed a resource list at the start of school but did not refer to it during meetings. Both teams shared student data prior to each meeting. |
| A clear protocol is used consistently with every student (e.g., keeping to a certain length of time to review data and select interventions). | Every team had a protocol and a timekeeper to ensure that they kept to that protocol. |
| Members stay on task and adhere to the agenda and protocols. | All teams adhered to the agenda and protocols, except in rare cases that warranted more time for a particular student. |
| Team members' discussions are collaborative and solution-oriented. | All teams had discussions that were collaborative and solution-oriented. |
| Each student is assigned an intervention approved by the team. | Every student discussed in the OT4S teams was assigned a team-approved intervention. |
| The team follows up on prior interventions to evaluate their effectiveness. | All teams included a time during the meeting to follow up on student interventions. |
| The team assigns at least one member to be responsible for carrying out each intervention (a champion). | All team meetings assigned a person to carry out each intervention. |
| One team member takes notes on the nature, timeline, and champion for each intervention. | All team meetings identified a note-taker who recorded the details of assigned interventions. |
| The team includes key teachers, counselors, and administrators when possible. | All team meetings included the core teachers, and often counselors and administrators when possible. |

NUMBER OF TEAMS MEETING EACH OF THE BEST PRACTICES FOR INTERVENTIONS

| BEST PRACTICES | FIDELITY |
|--|--|
| During team meetings, the team uses a resource map listing available intervention resources at the school. New resources and intervention ideas are added to the list. | Teams at one school developed a resource map at the start of the school year. |
| Resources on the map are organized by early warning indicators addressed (attendance, be- havior, or course performance) and by tier (grade- wide, targeted, or intensive). | The teams at the school with the resource map had it categorized by attendance, behavior, or course performance and by tier. |
| Team members have Tier 1 interventions (whole school or grade-level) in place, in conjunction with Tier 2 or 3 interventions. | Each school team used Tier 1 interventions, such as whole-grade or school attendance competitions, Tier 2 interventions such as student groups, and Tier 3 interventions such as individual counseling sessions. |
| Team members volunteer to take the lead on a number of student interventions so that responsibility is shared among team members. | All team members shared the responsibility in tak- ing the lead on student interventions. |

PRINCIPAL INTERVIEW PROTOCOL

- 1. United Way of Central Maryland implemented the Early Warning Response System Pilot Program in your school. Could you tell me some about the program?
- 2. Did you personally attend any of the Early Warning Response System Pilot Program meetings? (If yes, could you tell me about them?)
- 3. Did you help schedule these meetings?
- 4. Were there student/grade/school interventions that you feel originated from the Early Warning Response System Pilot Program?
- 5. Have you observed improvements in performance of students who may have been discussed during the meetings and received interventions?
- 6. In your school, you had a United Way of Central Maryland part-time social worker who worked on the Early Warning Response System Pilot Program. How helpful was this person to your school?
- 7. There were other United Way of Central Maryland members who visited your school and help to lead the Early Warning Response System Pilot Program. How helpful were these individuals to your school?

ADMINISTRATION/TEAM MEMBER INTERVIEW PROTOCOL

TRAINING

- 1. When did you start on the early warning team?
- 2. How were you introduced to the early warning response system process?
- 3. How many days did you attend the initial training? Other meetings?
- 4. Did you feel that the training was adequate? What could have been done differently to make the implementation of the process easier on you?
- 5. What were your initial thoughts/feelings towards the early warning response system process? How do you feel about it now?

DATA/INTERVENTION TEAM MEETINGS

- 1. What do you do at data/intervention meetings?
- 2. In general, how often do your early warning teams meet?
- 3. How long do your meetings typically last?
- 4. Who participates in the meetings?
- 5. Do all individuals/organizations participate in every meeting?
- 6. If a participant misses a meeting, what is the protocol for information sharing/ assignment of tasks?
- 7. Who facilitates your meetings? Does that responsibility rotate?
- 8. What materials do you use at the meetings (e.g. class lists, lists of students, student data)?
- 9. Are the meeting materials paper or electronic? Who prepares them and brings them to the meeting?
- 10. Do partners ever disagree about who is most "at risk" and should be discussed? If so, how is that situation handled?
- 11. Has the group encountered challenges throughout the early warning response system process? How have you resolved them?
- 12. What does your early warning response system group do really well?

IMPLEMENTATION OF STUDENT INTERVENTIONS

- 1. Do you have a set of interventions you apply to different types of students?
- 2. How were these individual interventions identified?
- 3. How was the final set of interventions generated?
- 4. Have you added new interventions?
- 5. Do you have interventions (you or your team) that are for the whole grade or even the whole school? (report card conferences, posters, ...)
- 6. Do you have interventions (you or your team) for specific small groups of students?

- 7. Do you meet individually with students on your focus list? How many? How often?
- 8. How do you know that an assigned intervention for a student has occurred? How are the interventions documented?
- 9. Have you observed improvements in performance of students that were discussed during your meetings and received interventions? What does that improvement look like, and how do you quantify it?

LESSONS LEARNED

- 1. Has your team encountered challenges throughout this process? How have you resolved these challenges?
- 2. What strategies for successful implementation or overcoming challenges with the early warning response system process would you like to share with schools that are considering implementing the process?
- 3. Do you have materials that you use that you can share with us?





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