



Ottawa
PATHWAYS
to better health

Final Report of 3-year Pilot

Released March 2023

Thank you

Ottawa Pathways to Better Health
program supporters:



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27 Accomplishments & Challenges



REPORT FINDINGS



Lynne Doyle
Executive Director
Ottawa County
Community Mental
Health



miOttawa.org/2015CHNA

miOttawa.org/2015CHIP

miOttawa.org/2017CHNA

miOttawa.org/2018CHIP

Ottawa County Pathways to Better Health, also known as “Pathways”, is a local program dedicated to assisting underserved and vulnerable people living in Ottawa County. Established in 2017, Pathways was formed and funded by a coalition of community partners with the goal of addressing the priority areas identified in the 2015 Community Health Improvement Plan – specifically, mental health, access to care, and healthy behaviors. To address these issues, Pathways used a community health worker model, where trusted health workers help people navigate complicated systems to receive the care and resources they need.

Addressing the complexity of mental health, access to care, and healthy behaviors is a monumental challenge. Although the issues can’t always be completely solved, Pathways can help to prevent and reduce the health challenges people face. Pathways is a commonsense approach that addresses the life, environmental, and social conditions standing in the way of health and well-being. Some examples include Pathways community health workers connecting clients to housing, work, healthy food, healthcare for chronic conditions, and access to mental health help. These tangible examples have an impact on health and healthcare utilization. In fact, some return-on-investment analyses of programs like Pathways show more than \$2 saved for every \$1 invested.

It’s clear that Pathways is making an impact. In this report, you’ll find that Pathways is serving the intended population – enrolling hundreds of individuals, often women, persons living in poverty, and those with complex physical and mental health needs. You’ll find that clients report substantial mental and physical health improvements. You’ll also notice the personal impact of Pathways community health workers, and the hope that they inspire while connecting clients to helpful community resources and services.

Community Mental Health of Ottawa County is proud to partner with Pathways as they connect people to the right services at the right time, treat the whole person, and provide an example of how a community can lift-up those most in need.

--Lynne Doyle

What is Pathways to Better Health?



The **Ottawa Pathways to Better Health (OPBH) program** uses an evidence-based community health worker (CHW) model designed to identify and address individual risk factors. CHWs walk alongside clients to set goals and assist in achieving them. CHWs are trusted members of the communities they serve; sharing common ethnicity, language, culture and life experiences with their clients. With funding from multiple sources, the OPBH program was fully implemented in February 2017 as a 3-year pilot.

Eligibility:

- 18 years of age (or older) or pregnant;
- Live in Ottawa County (including 49423 zip code);
- Enrolled in or eligible for Medicare and/or Medicaid;
- And have two or more chronic health conditions (such as diabetes, depression, anxiety, heart disease, arthritis, asthma, hypertension or long-term pain).



OPBH has nine community health workers who:

- Meet clients at their convenience in their home or elsewhere.
- Help clients set goals.
- Guide clients through the health care system.
- Link clients to medical care based on their specific needs (primary, dental, specialty, mental health, substance use treatment or other).
- Help clients manage their health conditions and prescriptions.
- Help clients reduce hospital and emergency room visits.
- Link clients to community services and resources (food, clothing, housing, financial and utility assistance, transportation, education, employment and much more).

Improving Health & Changing Lives



"My doctors are stunned by how much better I look, I smile more, my doctors are proud. I am more alive today than I have been the last 26 years."

-Brett



"My confidence is back after working with V. I have a place to live and a job that's going great. I interact more with people and feel better about myself. I'd recommend Pathways to anyone!"

-Ruben

"Ottawa Pathways to Better Health has been a wonderful resource for our community! The Community Health Workers have assisted our mutual clients in so many ways, from resource connection to assisting with Medicaid applications, to delivering items to people in need. **I can't imagine not having OPBH now that we have seen the impact on our community and those most in need.**"

- Christen Korstange, Community Resource Coordinator with Ottawa County Department of Health and Human Services

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**REPORT
FINDINGS**

Client Demographics



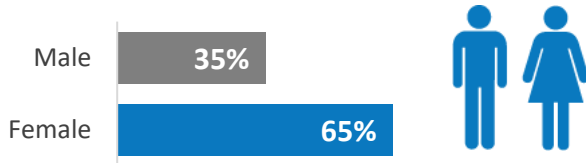
In the first three years, the 646 OPBH clients were **MORE** likely:

- Female
- English speaking
- Earn less than \$10,000
- Live in the SW quadrant

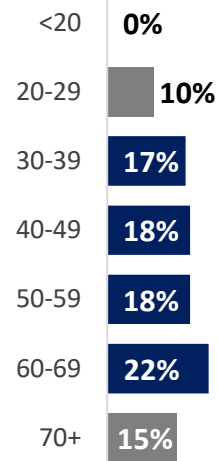
They were **LESS** likely:

- Younger than age 20
- Older than age 70
- A college graduate

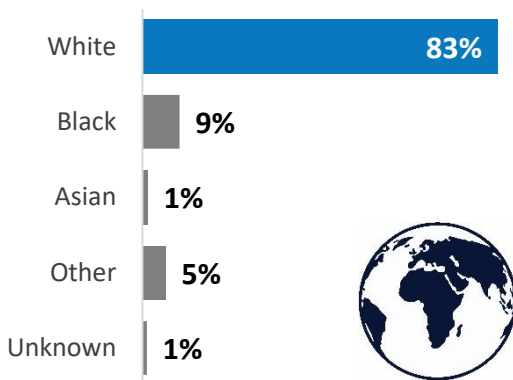
Gender



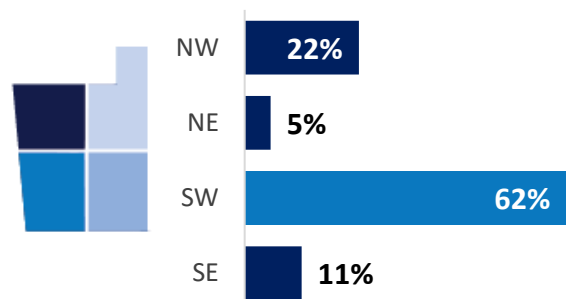
Age



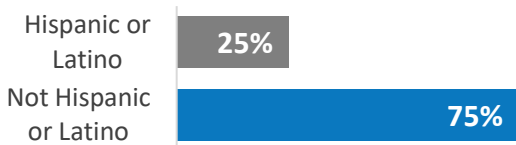
Race



Location*



Ethnicity



*The highest proportion of people lived in the SW quadrant of the county (34.5%) from 2017-2019 followed by the SE quadrant (29.3%), NW quadrant (19.9%), and the NE quadrant (16.3%). In addition to the SW quadrant having the highest proportion of people, according to the CDC the SW quadrant also has the most areas with the highest overall social vulnerability, supporting the need for more resources. Source: [CDC/ATSDR Social Vulnerability Index 2020](https://www.cdc.gov/atsdr/socialvulnerability/index2020/).

Client Demographics (continued)



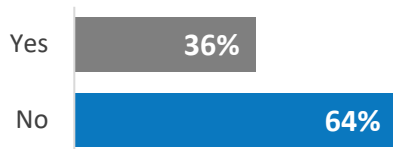
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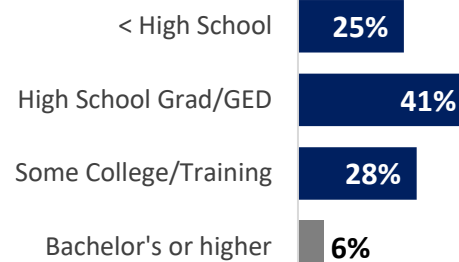
They were **LESS** likely:

- Younger than age 20
- Older than age 70
- A college graduate

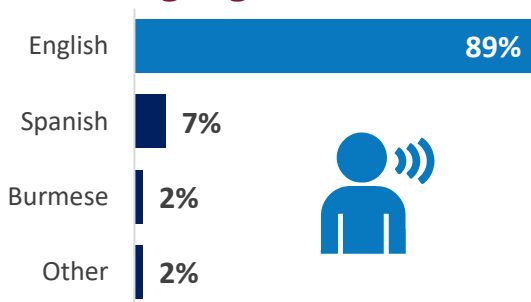
Children <18 in Household



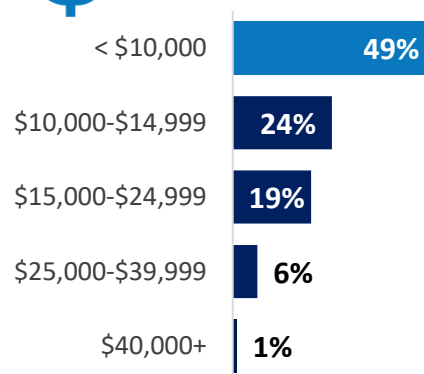
Education



Language



Income



Adverse Childhood Experiences (ACEs)

Health is influenced by more than genetics, biology, and personal decisions – it’s also impacted by our social situation, now and in the past.

Adverse Childhood Experiences (ACEs) are events that happened during childhood that have been shown to directly impact health. People with more ACEs have an increased risk for experiencing poor health outcomes. Pathways clients report far more ACEs than most Ottawa County residents, indicating the needs of this population. Pathways is finding and helping the people that need it most.

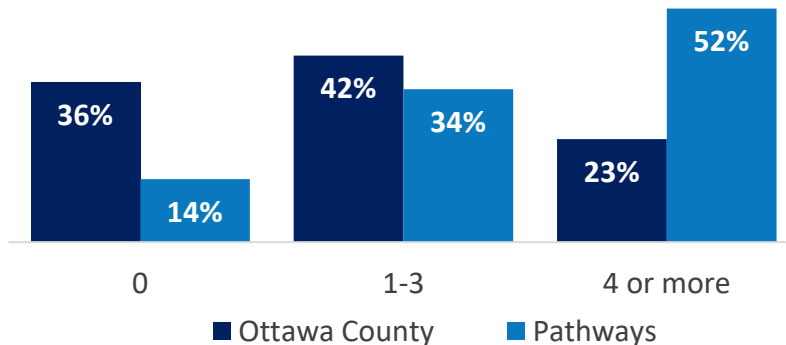
Ottawa County
adults

2

Pathways
clients

4.3

Pathways clients are twice as likely
to report **4+ ACEs**



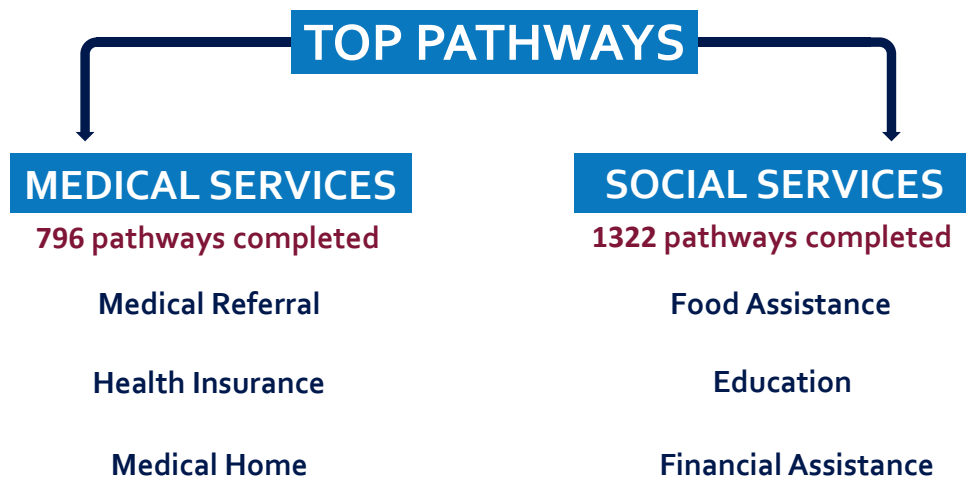
Source: Ottawa County adult average from 2020 Ottawa County Behavioral Risk Factor Survey (BRFS)

Program Data Overview

Top Referral Sources



Top Chronic Conditions

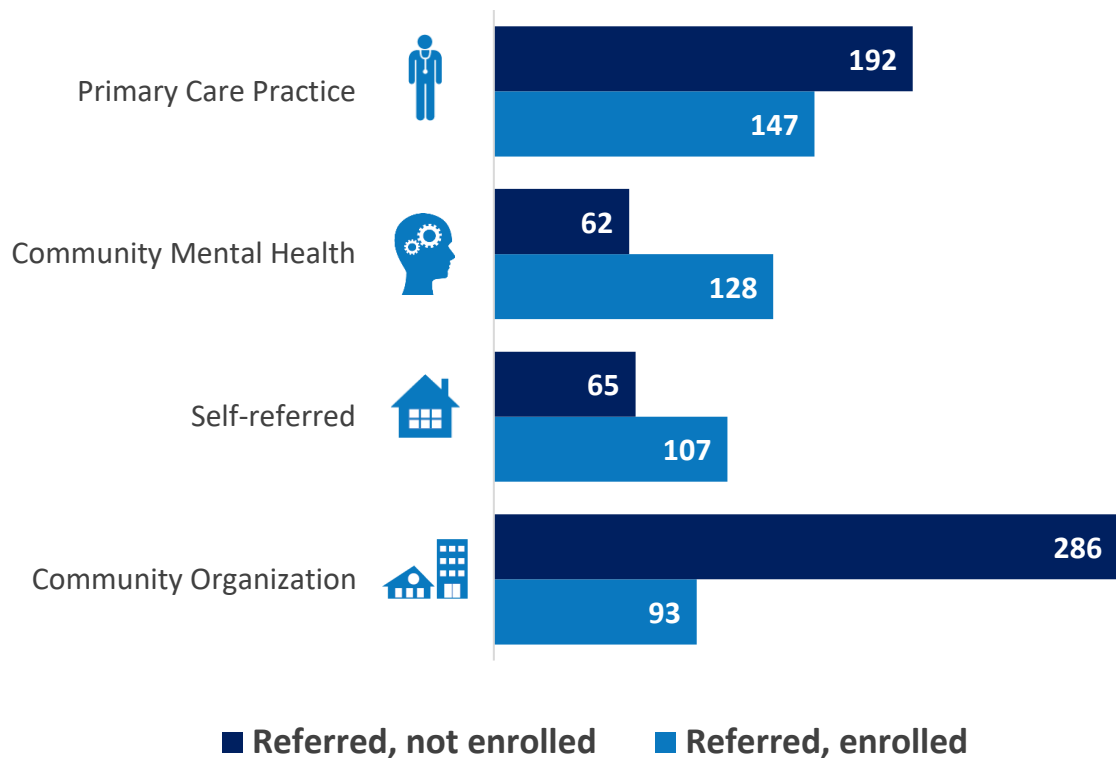


This 3-year pilot project report summarizes key measures from OPBH program data collected between February 2017 and December 2019. These data reflect clients who are in the referral process, are enrolled in active pathways, who have completed pathways and are no longer active. As a result, the most recent data are subject to change.

Program Data: Referral Sources

Primary care practices referred the most clients who were eligible and willing to enroll in OPBH. Various community organizations, Community Mental Health and self-referrals were other top referrers of enrolled clients.

Referral Source for Referred Not Enrolled vs Referred Enrolled Clients



Program Data: Percent of Clients Enrolled

3 of 4 people referred by a community health worker enrolled in Pathways.

Community Mental Health and self-referrals are not only top referral sources (seen on previous page), but they were also top sources for enrolling the highest percentage of clients. Primary care practices and community organizations were top referral sources but enrolled a smaller proportion of clients than other sources.

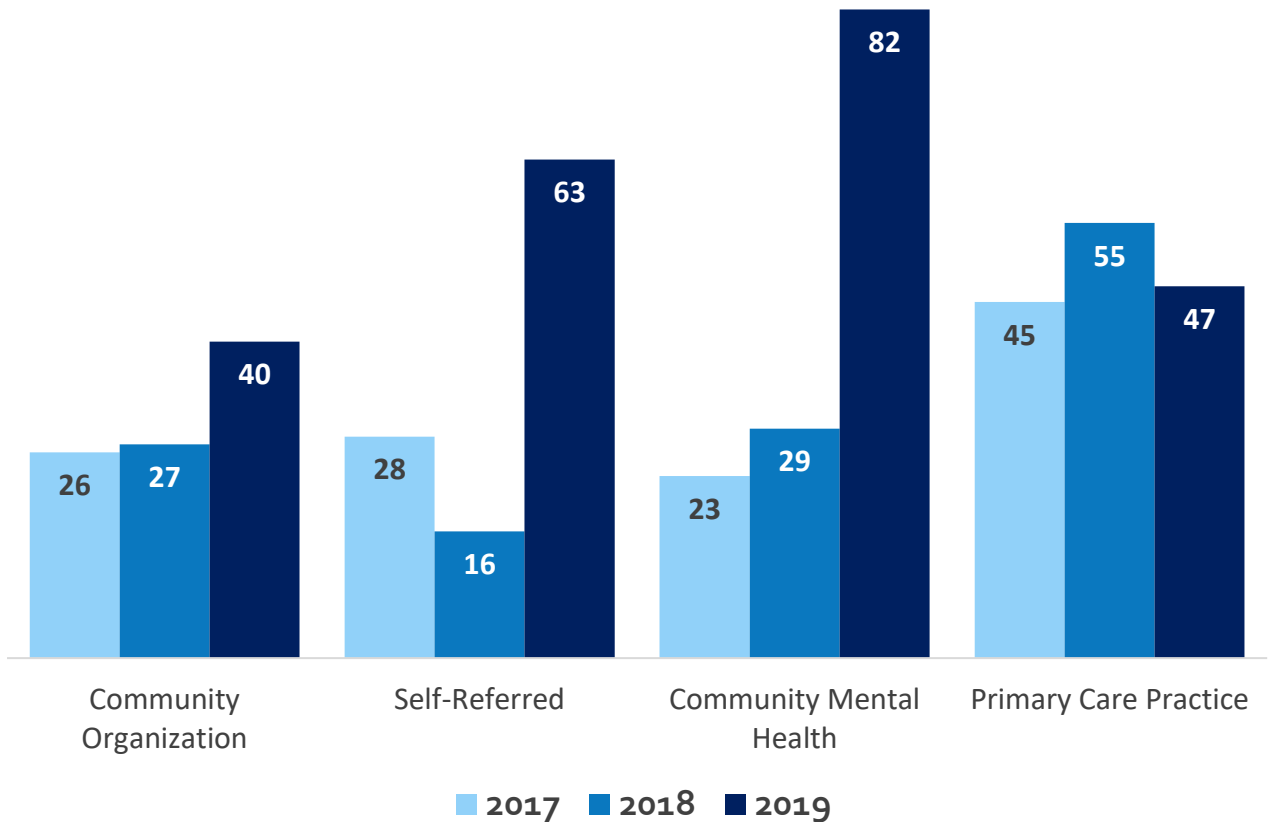
Referral Source	Number of Clients Enrolled	Total Number of Clients Referred	Percent of Clients Enrolled
Community Health Worker	66	91	73%
Community Mental Health	128	190	67%
Self-Referred	107	172	62%
Other	26	59	44%
Hospital	23	54	43%
Primary Care Practice	147	339	43%
Dept. of Health and Human Services	26	67	39%
Specialty Care Practice	14	39	36%
Community Organization	93	379	25%
Health Plan	16	68	24%
Total	646	1458	44%

Program Data: Referral Sources

Primary care practices referred the most clients who were eligible.

Many referral sources to OPBH remained stable, but others saw changes over the three-year period. Community Mental Health, self-referred and community organizations all referred more clients from year two to three. Primary care practice referrals remained stable.

Referral Source for Enrolled Clients



Referrals Increased

- ✓ Community Mental Health
- ✓ Self-Referral
- ✓ Community Organizations

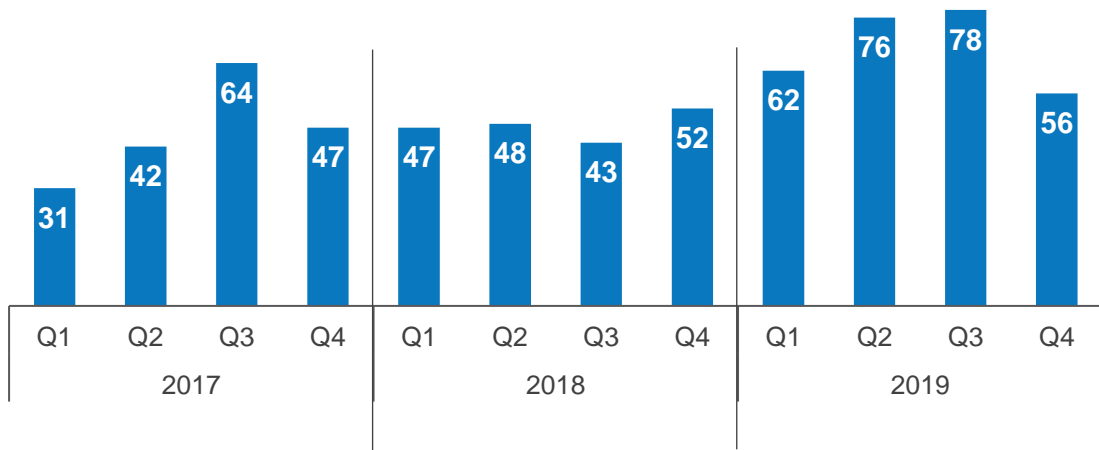
Referrals Decreased

- ✓ Hospitals
- ✓ Specialty Care Practice
- ✓ Home Health Agencies

Program Data: Enrollment

Despite challenges, each year more clients were served.

Growth brought several challenges to year two. Increasing the number of CHWs in 2018 included hiring and training four new staff members; one to replace a CHW, and three to expand general capacity and to better serve chronic mental health needs. Also, the closure of Ingham CareHub (agency that managed referrals and client records) prompted the OPBH Advisory Committee to recommend local management of referrals and the purchase of a proprietary software designed specifically for the Pathways model of care and risk factor reduction.



646
Lives Impacted



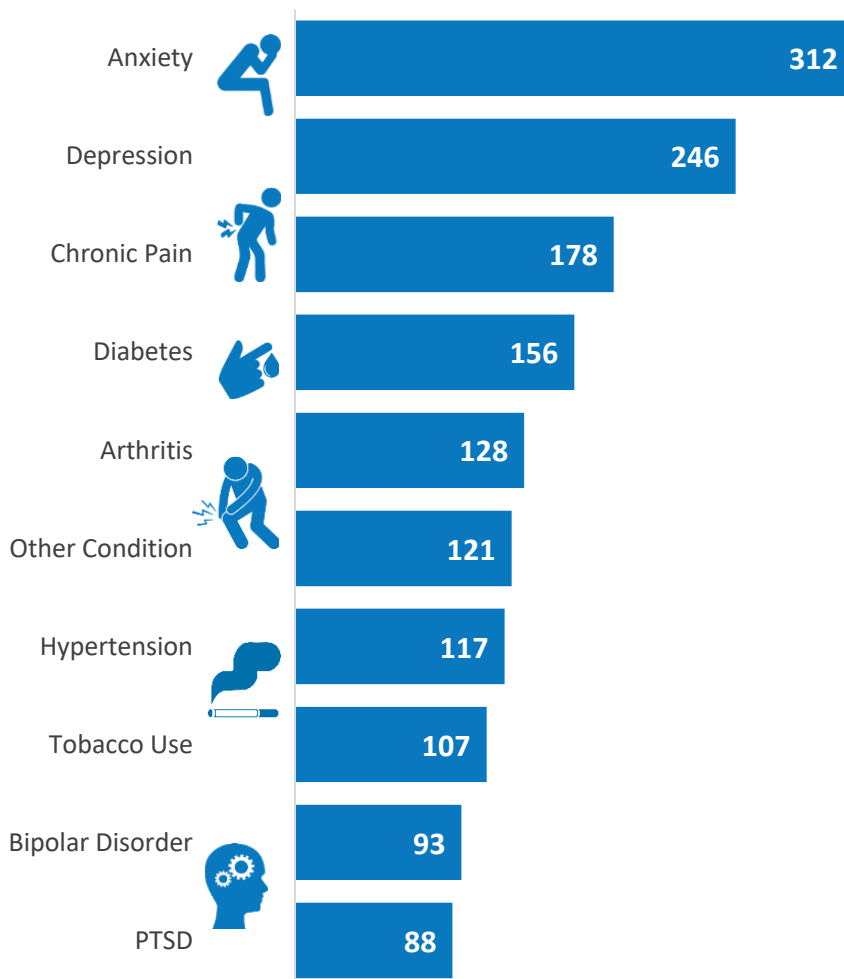
Note: Quarterly counts of enrollees displayed here differ from previous reports due to a client-based data system that records only the latest encounter. This results in prior years counts being artificially low. Re-enrollees are counted only in the quarter of their most recent encounter.

Client Chronic Conditions

The top reported conditions are related to mental health.

OPBH serves clients with many needs, including chronic mental and physical conditions. Mental health conditions, such as anxiety and depression, are reported the most by clients followed by physical conditions like chronic pain, diabetes, and arthritis. One of the primary features of the OPBH program is that it addresses mental health in the community – a priority area identified in the [2018 Community Health Improvement Plan \(CHIP\)](#).

Top 10 most reported chronic conditions

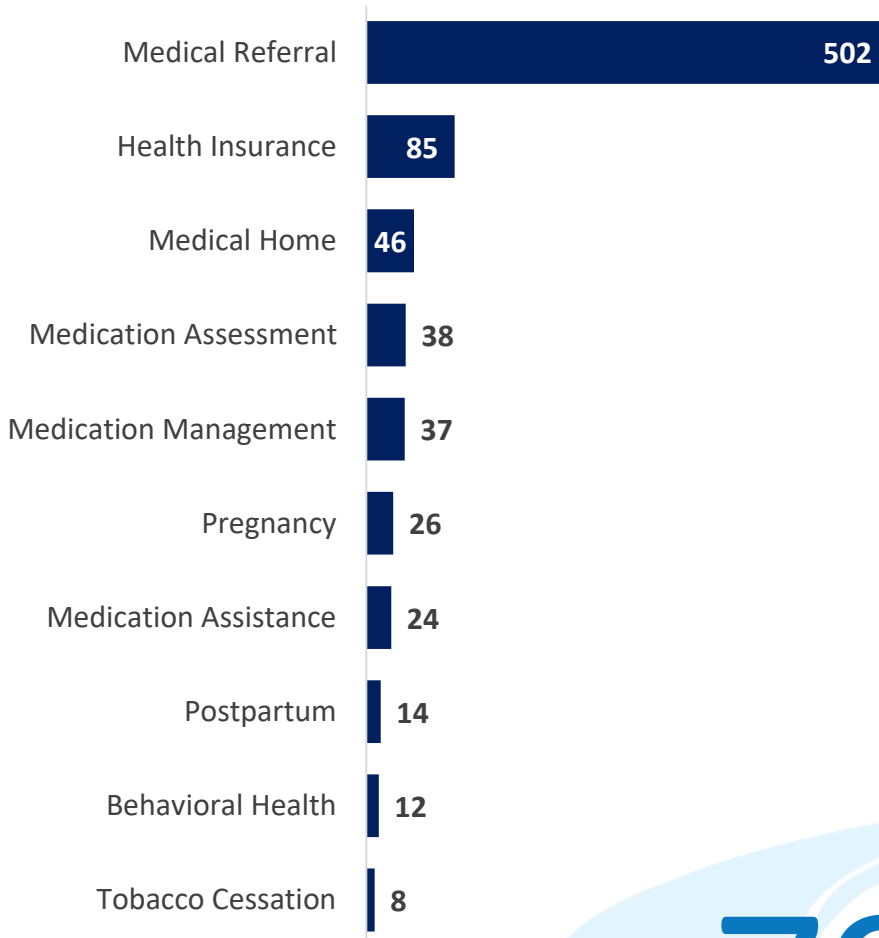


Program Data: Completed Medical Pathways

The road to improved health takes many paths.

Of all the 38 pathways used by OPBH clients in the three-year pilot, **medical referrals and help with health insurance** are the two most common needs. Not included in the top ten highlighted below, but still important for stabilizing health, clients also needed assistance with obtaining family planning services and immunizations.

Top 10 most used Medical Pathways

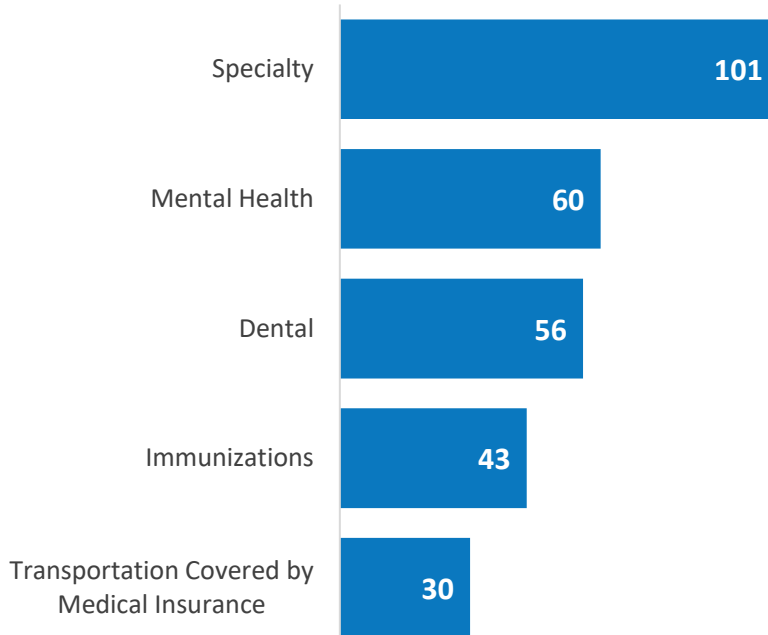


of **796**
Completed Pathways

The medical referral pathway encompasses many types of referrals.

Of the fifteen types medical referrals used by OPBH clients in the three-year pilot, getting in to **see a specialist and mental health** are the two most common medical referrals. Not included in the top five highlighted below, clients also needed assistance with primary care, vision, pharmacy, hearing, nutrition, and substance use.

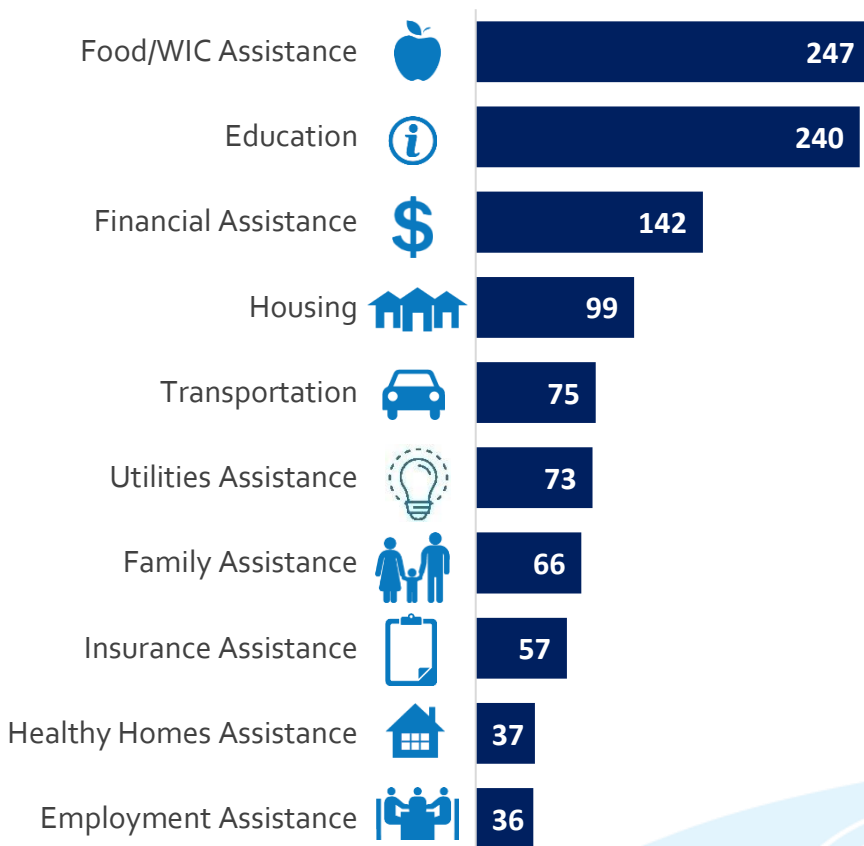
Top 5 Medical Referrals



Program Data: Completed Social Service Pathways

Medical pathways addressed many health needs in the first three years of the program. However, OPBH clients **needed even more assistance with social issues** that prevented them from improving their health. Not included in the top ten, but still important for stabilizing health, clients needed assistance with clothing, non-health insurance, legal circumstances, obtaining identification, communication, support groups, exercise, domestic violence, and furniture, among others.

Top 10 most used Social Service Pathways



of **1322**
Completed Pathways

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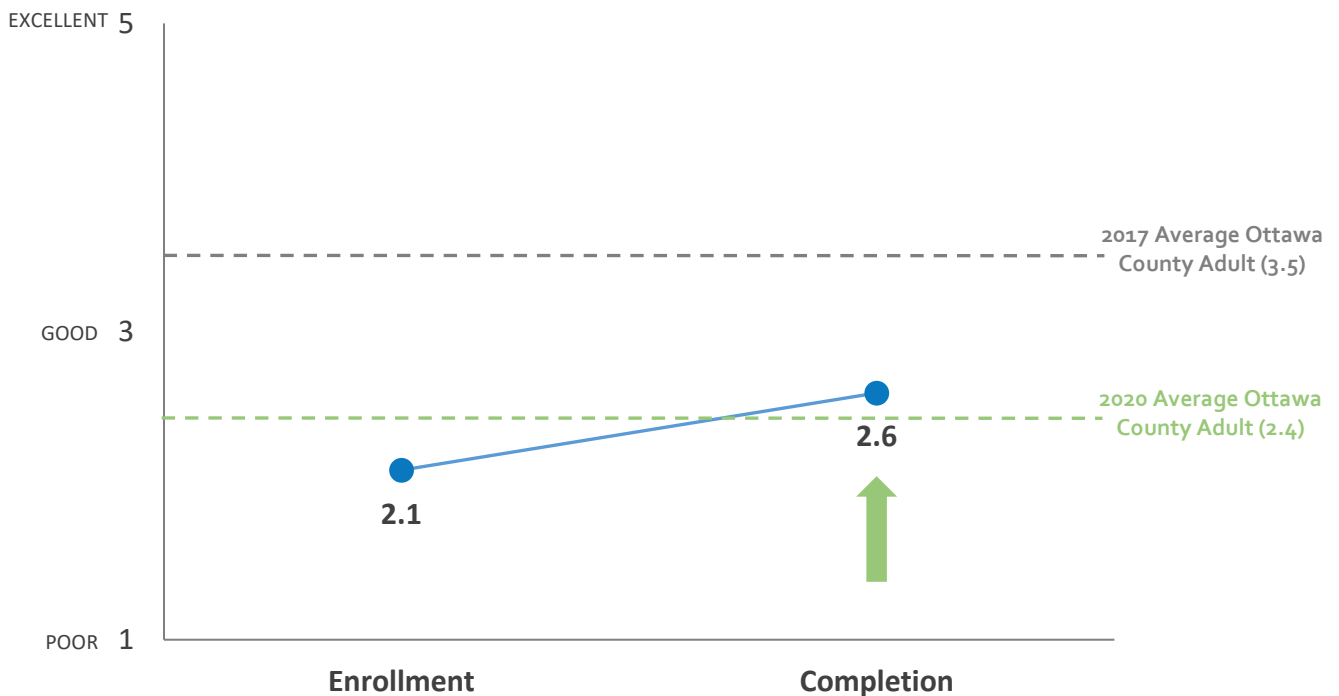


**REPORT
FINDINGS**

Overall Health Status

Clients report a statistically significant increase in their overall health.

On average, clients report a small but significant **improvement** in their perceived overall health. It is important to note that at enrollment, the average OPBH client rates their health as only “fair” – slightly lower than the 2020 average Ottawa County adult’s rating of between “fair” and “good”. This is indicative of the challenges faced by incoming OPBH clients and the importance of communication in the referral network.

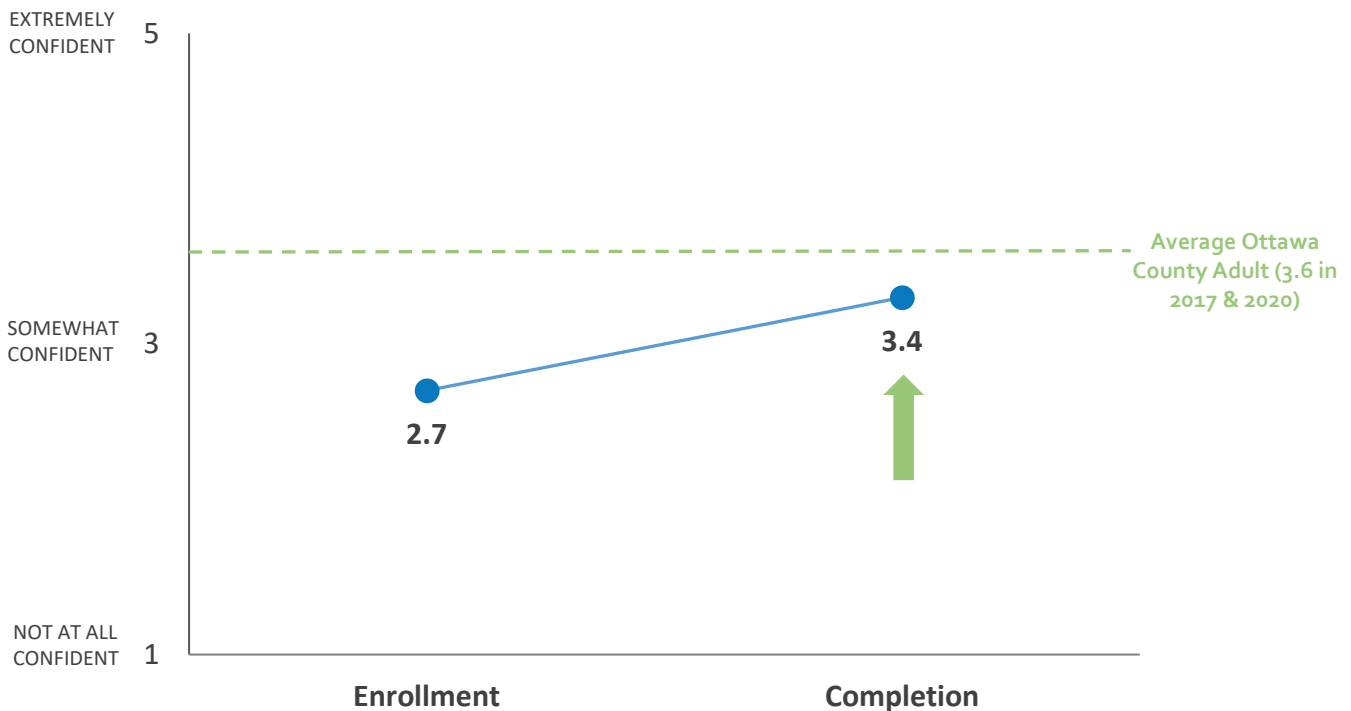


Question: Would you say in general that your health is.... Excellent (5), Very good (4), Good (3), Fair (2), Poor (1)

Sources: Results from 174 OPBH clients who completed both the enrollment and completion questionnaires between February 2017 and December 2019. The Ottawa County adult average (2.4) is from the same question asked in the 2020 Ottawa County Behavioral Risk Factor Survey (BRFS); The Ottawa County adult average (3.5) is from the same question asked in the 2017 Ottawa County BRFS.

Navigating the Health Care System

Clients report a statistically significant increase in their confidence navigating the health care system. Clients **gained confidence** in their ability to successfully navigate the often complex health care system. In fact, after program completion, the average OPBH client reports nearly as much confidence as the average Ottawa County adult – between “somewhat” and “very” confident.

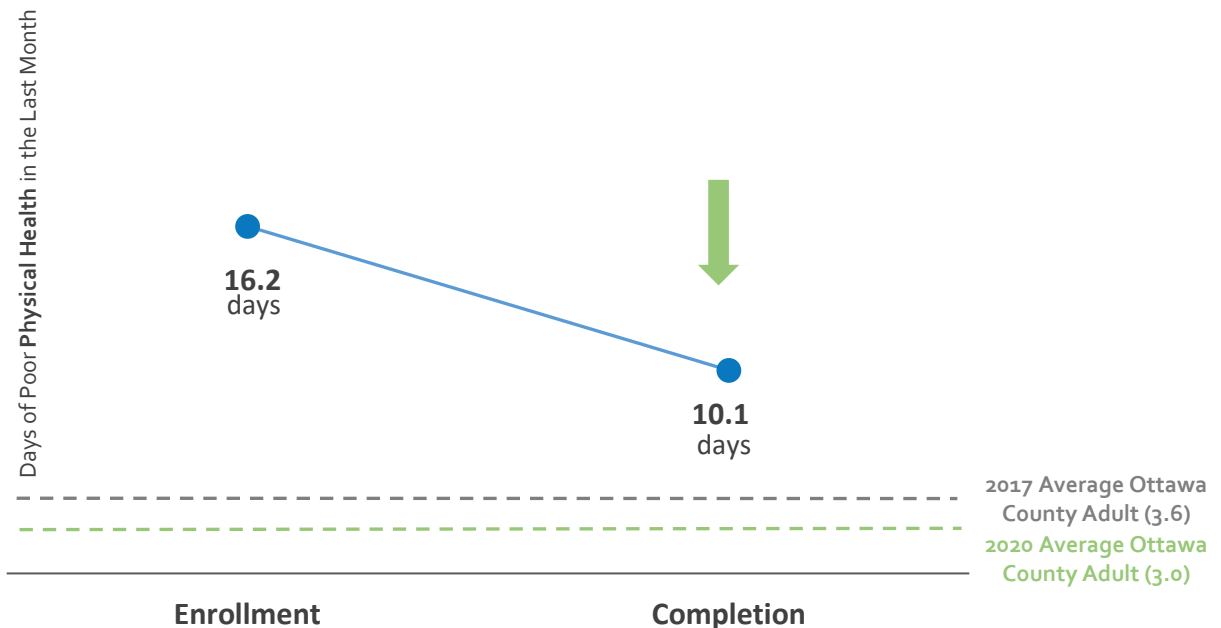


Question: How confident are you that you can successfully navigate the health care system? Not at all confident (1), Not very confident (2), Somewhat confident (3), Very confident (4), Extremely confident (5)

Sources: Results from 174 OPBH clients who completed both the enrollment and completion questionnaires between February 2017 and December 2019. The Ottawa County adult average (3.6) is from the same question asked in the 2020 Ottawa County BRFS; The Ottawa County adult average (3.6) is from the same question asked in the 2017 Ottawa County BRFS.

Poor Physical Health

Clients report a statistically significant decrease in days impacted by poor physical health. At program completion, the average client experienced six fewer days of poor physical health each month than before the program – a **38% improvement**. Though this is a significant gain, OPBH clients report many more days a month of poor physical health than the 3.0 days reported by the average adult in Ottawa County, indicating that referrals are reaching the desired population for this program.

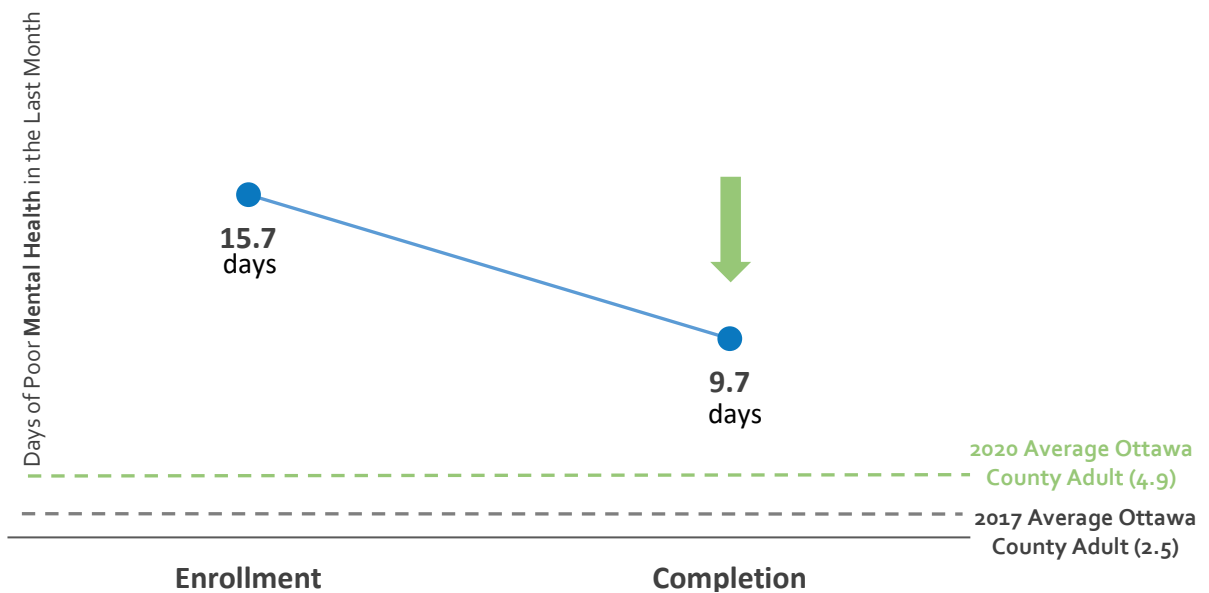


Question: Now thinking about your physical health, which includes physical illness or injury, for how many days during the past 30 days was your physical health not good? (0 – 30 days)

Sources: Results from 174 OPBH clients who completed both the enrollment and completion questionnaires between February 2017 and December 2019. The Ottawa County adult average (3.0) is from the same question asked in the 2020 Ottawa County BRFSS; The Ottawa County adult average (3.6) is from the same question asked in the 2017 Ottawa County BRFSS.

Poor Mental Health

Clients report a statistically significant decrease in days impacted by poor mental health. After OPBH, the average client experienced six fewer days of poor mental health per month than they reported before the program – a **39% improvement**. Gaining nearly a week of improved mental health each month is a significant outcome for a population with many more poor mental health days than the 4.9 days/month of the average Ottawa County adult.



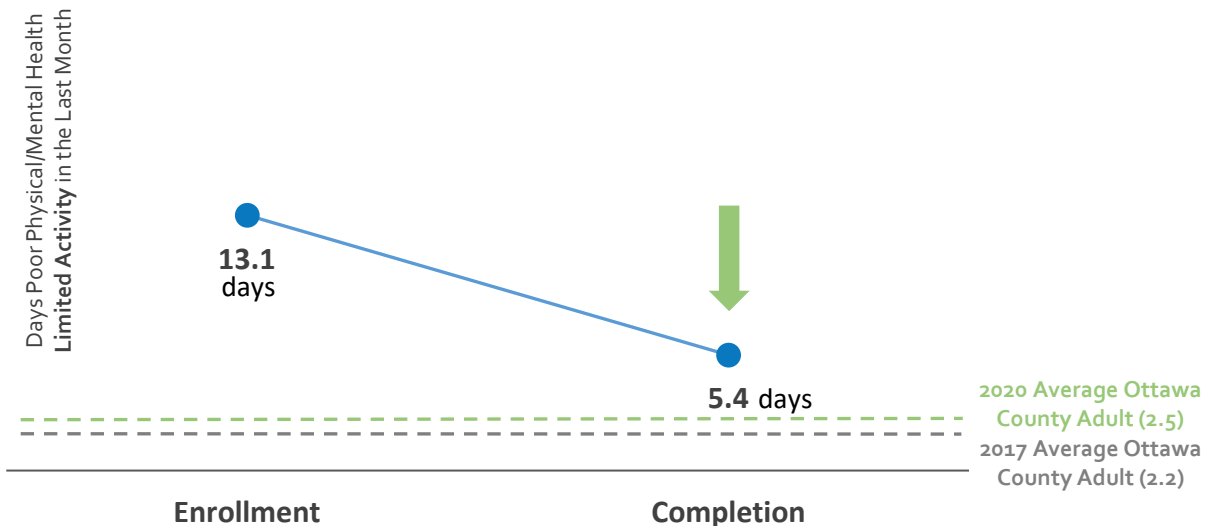
Question: Now thinking about your mental health, which includes stress, depression and problems with emotions, for how many days during the past 30 days was your mental health not good? (0 – 30 days)

Sources: Results from 174 OPBH clients who completed both the enrollment and completion questionnaires between February 2017 and December 2019. The Ottawa County adult average (4.9) is from the same question asked in the 2020 Ottawa County BRFSS; The Ottawa County adult average (2.5) is from the same question asked in the 2017 Ottawa County BRFSS.

Activity Limitations

Clients report a statistically significant decrease in days

when poor physical/mental health limited their activities. The number of days per month when daily activities were limited due to physical or mental health declined almost 8 days – a **59% improvement** for the average OPBH client. At enrollment, clients experienced activity limitations on five times more days than the 2.5 days/month the average Ottawa County adult reports. The progress reflected by these results suggests that CHWs are effective and trusted partners in their communities as one by one they work with clients to improve their health and their lives.



Question: During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work or recreation? (0 – 30 days)

Sources: Results from 174 OPBH clients who completed both the enrollment and completion questionnaires between February 2017 and December 2019. The Ottawa County adult average (2.5) is from the same question asked in the 2020 Ottawa County BRFSS; The Ottawa County adult average (2.2) is from the same question asked in the 2017 Ottawa County BRFSS.

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**REPORT
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Challenges & Accomplishments



CHALLENGES

- Often ranking as the [healthiest county](#) in Michigan makes it harder to compete for outside funding of innovative solutions for local health challenges.
- [No reimbursements](#) from Medicare/ Medicaid limits services.
- Health plans not recognizing the need to stabilize, and reimburse for, [social determinants of health](#) to improve health outcomes.
- Funding [sustainability](#).
- Administration transition from Ingham CareHub [services](#) to in-house services.
- Data collection [software transition](#) from Essette to Care Coordination Solutions (CCS).



ACCOMPLISHMENTS

- [Local partners](#) identified community needs to discuss in further detail.
- One of the 2018 CHIP Access to Care recommended strategies was to [expand the OPBH program](#) to enable more CHWs to serve a greater number of people.
- [Greater impact](#) made through leveraged financial and organizational resources than one organization providing services alone.
- A focus on health outcomes using a [whole person approach](#).
- [Creates a link](#) between the health care system and the community care system.
- Clients report [improved health](#), navigating the health care system with more ease and getting connected to the care they need.
- Priority Health reimbursement for completed Pathways [saw continued growth](#).

Spectrum Health's Mosley Team Award for Extraordinary Community Health Worker Service



2019



2018

OPBH's Community Health Worker Team

This award recognizes and acknowledges outstanding service, dedication and excellence within the profession. The OPBH team members received the award because they exemplify excellence, accountability, compassion, integrity, respect, teamwork and collaboration to achieve significant and impactful accomplishments.

Benefits of Partnership



BENEFITS

- Developed from [identified community needs](#) through the 2015 CHNA & 2015 CHIP.
- The 2018 CHIP Access to Care strategy recommended [expanding the OPBH program](#) to enable more CHWs to serve a greater number of people.
- [Greater impact](#) made through leveraged financial and organizational resources than one organization providing services alone.
- A focus on health outcomes using a [whole person approach](#).
- [Creates a link](#) between the health care system and the community care system.
- Creates an [integrated care approach](#) between physical health care and mental health care.
- Addresses [unmet, health-related social & economic needs](#), major contributors to the rising cost of health care.
- Program data indicates that Pathways is indeed [reaching those most in need](#), the underserved in our community.
- Pathways clients report [improved health](#), navigating the health care system with more ease and getting connected to the care they need.
- For every \$1 invested, studies consistently show CHW programs [had positive returns saving up to \\$2.47](#) in health care expenditures alone.^{1,2,3}
- Continued partnership enhances brand and [ensures a voice](#).
- Public Health & Hospitals partner in creative approaches to [address upstream influences and meet AHRQ indicators](#).

1. Whitley EM, Everhart RM, Wright RA. Measuring return on investment of outreach by community health workers. J Health Care Poor Underserved. 2006 Feb;17(1 Suppl):6-15. doi: 10.1353/hpu.2006.0015. PMID: 16520499. 2. [Community Health Worker Return on Investment Study Final Report \(nachw.org\)](#). 3. [Evidence-Based Community Health Worker Program Addresses Unmet Social Needs And Generates Positive Return On Investment \(nih.gov\)](#)

- On October 1, 2018, OPBH transitioned from an administrative relationship with Ingham CareHub and brought all administration in-house. Services formerly provided by CareHub, such as intake and assignment of referrals; software management; reporting of client data; billing to Medicaid health plans; and various administrative and quality assurance functions, came under OPBH management. With the administrative transition, OPBH also moved from Essette software to Care Coordination Solutions (CCS) software to document, monitor and assess the progress of clients and CHWs. While most data were migrated without issue, one challenge identified was that all Essette clients, including referred but unenrolled clients, were considered “Enrolled” in CCS. This issue resulted in an artificially inflated number of enrolled clients in the Preliminary Year 2 Program Data Report. This issue has been addressed and the OPBH program will continue to refine data collection and management processes to ensure future reports are accurate and useful. Because data collection, management, and analysis methods may be updated in the future, expect minor differences in future reports.
- Data from this report were sourced from CCS, Essette, and internal data collection systems.
- The 646 clients included in this report have a status of “Enrolled” as of December 31, 2019. Enrolled is defined as follows:
 - Client new to CCS: Enrollment Status=“Enrolled”
 - Client originally in Essette: Release of Information Signed=“Yes”
- Most indicators featured in this report are described for all 646 enrolled clients of OPBH referred from February 1, 2017 through December 31, 2019. *If there are descriptive differences between 2017, 2018 and 2019 not already noted for a given indicator, they will be noted below according to their page in this report.*
- Program data were analyzed using SAS 9.4 (Cary, NC). All statistical tests utilized a 95% confidence level and a significance cutoff of 0.05.
- Page 8. The number of clients with missing data for each demographic indicator varies: Race – 280 missing; Ethnicity – 57; Location – 6 missing.
- Page 9. The number of clients with missing data for each demographic indicator varies: Children in HH – 154 missing; Language – 7 missing; Education – 49 missing; Income – 86 missing.
- Page 14. Figure for top referral sources enrollment displays enrolled clients referred 2017-2019.
- Page 15. Figure for enrollment displays enrolled clients referred 2017-2019.
- Page 16. Top ten most common self-reported chronic conditions reported by enrolled clients who were referred 2017-2019. Due to data collection challenges, the number of chronic conditions reported in 2017 was substantially lower than 2018 and 2019.
- Page 17-19. Figures include clients referred 2017-2019 who completed pathways. Completed medical pathways: 167 in 2017, 184 in 2018, 445 in 2019. Completed social service pathways: 311 in 2017, 339 in 2018, 672 in 2019.
- Page 21. Analysis of overall health using a paired sign test; significance at $p<0.001$. One of five questions developed for OPBH to compare to those asked in the Ottawa County Community Health Needs Assessment (CHNA) and identified by the 2015 CHIP as community indicators to track going forward. Results include only those who completed the question on both the enrollment and completion surveys ($n=174$).
- Page 22. Analysis of ability to navigate health system using a paired sign test; significance at $p<0.001$. One of five questions developed for OPBH to compare to those asked in the Ottawa County CHNA and identified by the 2015 CHIP as community indicators to track going forward. Results include only those who completed the question on both the enrollment and completion surveys ($n=173$).
- Page 23. Analysis of poor physical health days using a paired t-test; significance at $p<0.001$. One of five questions developed for OPBH to compare to those asked in the Ottawa County CHNA and identified by the 2015 CHIP as community indicators to track going forward. Results include only those who completed at least one question on both the enrollment and completion surveys ($n=170$).
- Page 24. Analysis of poor mental health days using a paired t-test; significance at $p<0.001$. One of five questions developed for OPBH to compare to those asked in the Ottawa County CHNA and identified by the 2015 CHIP as community indicators to track going forward. Results include only those who completed the question on both the enrollment and completion surveys ($n=171$).
- Page 25. Analysis of activity limitations using a paired t-test; significance at $p<0.001$. One of five questions developed for OPBH to compare to those asked in the Ottawa County CHNA and identified by the 2015 CHIP as community indicators to track going forward. Results include only those who completed the question on both the enrollment and completion surveys ($n=168$).

