

# Youth Mental Health System of Care (YMHSoC)

# **Community Conversations & Listening Sessions Report 2024**









This report has been prepared by Region 1 Planning Council

# **TABLE OF CONTENTS**

Executive Summary	4
Youth Mental Health System of Care (YMHSoC) Overview	4
Purpose and Vision	4
Community Support System Framework	4
Community Conversations & Listening Sessions	6
Thematic Analysis Overview	6
Aggregate Thematic Analysis	8
Themes, Definitions & Examples	8
Thematic Analysis	11
Sentiment Analysis	12
Detailed Thematic Analysis	14
Report Summary	16
Appendix: Technical Methodology for Thematic Analysis  Data Collection & Structuring  Data Processing  Data Analytics  LIST OF EXHIBITS	
Figures	
Figure 1.1: The Community Support System Framework	5
Figure 1.2: The Community Support System Framework Descriptions	
Figure 2.1: Provider Conversation Example Flyer	6
Figure 2.2: Parents and Youth Conversation Example Flyer	6
Figure 2.3: Timeline of Community Conversations (Listening Sessions) by Month	7
Figure 3.1: Theme Classification Results	11
Figure 4.1: Sentiment Analysis Results	13
Figure 5.1: Detailed Thematic Analysis Results	15
Tables	
<b>Tables</b> Table 3.1: Aggregate Thematic Analysis Results - Community Strengths	8
Tables	

# **EXECUTIVE SUMMARY**

Between June 2022 and November 2023, the Youth Mental Health System of Care (YMHSoC) of Winnebago and Boone Counties partnered with the Northern Illinois Center for Nonprofit Excellence (NICNE) to host community conversations, or listening sessions, about mental health services in the community. These listening sessions coincided with the identification of system gaps and the advancement of efforts to create an efficient, comprehensive mental health system for youth and young adults. The conversations entailed having tailored discussions with mental health services providers, as well as community youth and parents that have experience utilizing the current system of care. The conversations centered around the major service areas identified in the Community Support System (CSS) framework and featured discussion on community strengths, weaknesses, and "optimal systems", or an envisioning of what an ideal system of care would look like.

This report provides a comprehensive thematic analysis of the listening sessions to identify the main themes from the strengths, weaknesses, and optimal systems discussions. Utilizing machine learning solutions, this analysis provides aggregated results that illustrate the themes across all of the listening sessions as well as detailed results that investigate the specific themes identified in each session. The detailed results section also further analyzes the correlations or relationships that exist across the listening sessions, highlighting similarity in thoughts between the different types of participants. Finally, a sentiment analysis is embedded into the report, which analyzes participants' varied responses to community strengths and weaknesses.

# YOUTH MENTAL HEALTH SYSTEM OF CARE OVERVIEW

# Purpose and Vision

The Youth Mental Health System of Care (YMHSoC) is a community-based organization focused on bringing awareness and actionable steps towards addressing mental health issues in youth. The organization consists of a collective of partnership organizations — Rosecrance, Youth Services Network (YSN), Brightpoint, and the National Alliance on Mental Illness (NAMI), among others — whose mission is to create a coordinated and comprehensive system of care for addressing the mental health needs of children and adolescents. Their vision is a comprehensive, coordinated, equitable, and evidence-based youth mental health system that is affordable and accessible for individuals aged 0 to 21 in Winnebago and Boone Counties.

## Community Support System Framework

YMHSoC's vision is guided by the Community Support System (CSS) framework, which is comprised of eleven individual component areas, all of which collectively represent the primary array of services and opportunities an adequate community service system should offer to those experiencing mental illness. Figure 1.1 on the next page shows the CSS framework.

The ordering of components on the wheel do not indicate priority or value; rather they are represented as "spokes', all working together synergistically to create a comprehensive mental health system of care. Case management is represented as the "hub" of the wheel, indicating that it is an overarching component that affects and interacts with all the other components. Finally, component areas can be further subdivided into their corresponding principle service areas, as show in Figure 1.2, which illustrates the key services that should be provided within each component.

<sup>1</sup> Youth Mental Health System of Care. "About Us - YMHSOC," Accessed April 10, 2024. https://www.ymhsoc.org/about/.

Figure 1.1: The Community Support System Framework<sup>2</sup>



### **Community Support System Framework**

Figure 1.2: The Community Support System Framework Descriptions

#### **Client Identification and Outreach**

- Client Identification
- Outreach
- Transportation Assistance

#### **Mental Health Treatment**

- Diagnostic Evaluation
- Supportive Counseling
- Medication Management
- Substance Abuse Services

#### **Crisis Response Services**

- Crisis Telephone Services
- Walk-In Crisis Services
- Crisis Outreach Services
- Crisis Residential Services

#### **Health and Dental Services**

#### Housing

- Supportive Housing
- Residential Assistance for Homeless Mentally III Persons

#### **Income Support**

#### **Peer Support**

- Self-Help
- Consumer-Operated Services

#### Family and Community Support

- Assistance to Families
- Education for the Community

#### **Rehabilitation Services**

- Social Rehabilitation
- Vocational Rehabilitation

#### **Protection and Advocacy**

**Case Management** 

<sup>2</sup> Definitions of each component area are included in Figure 2.3, which shows a timeline of the listening sessions.

# COMMUNITY CONVERSATIONS & LISTENING SESSIONS

Between June 2022 and November 2023, YMHSoC partnered with Rosecrance and the Northern Illinois Center for Nonprofit Excellence (NICNE) to host community conversations, or listening sessions centered around each CSS component area. Separate sessions were conducted for mental health service providers, parents of youth with mental illness, and youth who have experience with mental illness. YMHSoC's Youth Engagement Steering (YES) team led the sessions with both the parents and youth with lived experience, focusing on gathering the perspective of individuals with direct experience navigating the current mental health service system in the two counties. Figure 2.1 and 2.2 below provide examples of flyers created for the provider and youth/parent community conversations.

Figure 2.1: Provider Conversation Example Flyer<sup>3</sup>



During each listening session conversation, group participants were introduced to the YMHSoC organization, the IRIS referral network system, which is designed to support the implementation of the system of care objectives, and the CSS framework. Session participants would then break out into focus groups and discuss the current strengths and weaknesses of the community with respect to a particular component area. They also discussed what an optimally functioning service system would look like in the community, a term referred to as "optimal systems". For example, group participants attending one of the Mental Health Treatment community sessions would discuss the strengths, weaknesses, and optimal systems of that CSS component within the Winnebago and Boone County community.

# Thematic Analysis Overview

Following individual breakout group discussion, workshop facilitators collaborated with the group participants to take notes on the key strengths, weaknesses, and optimal systems points that relate to the particular CSS component area being discussed. This textual data serves as the corpus of data points utilized throughout the thematic analysis. Figure 2.3 on page 7 provides a detailed timeline of each listening session and the corresponding CSS component area(s) that was discussed.

Figure 2.2: Parents and Youth Conversation Example Flyer



# WE NEED YOU! We are looking for feedback from those who have lived experience with mental illness or supporting youth with mental illness... Those who inform proving the Yout System of strength optimal transfer optimal transfer in the Yout System of strength optimal t

#### COMPENSATION

All participants receive a \$30 gift card for each month of participation!

#### WHY?

Those who participate will inform providers involved in the Youth Mental Health System of Care by identifying strengths, barriers, and optimal treatment to ensure "nothing about us without us"

#### **GET INVOLVED**

Join Tommy Corral Memorial Foundation for monthly discussions. Text or call 815-519-1430 for details

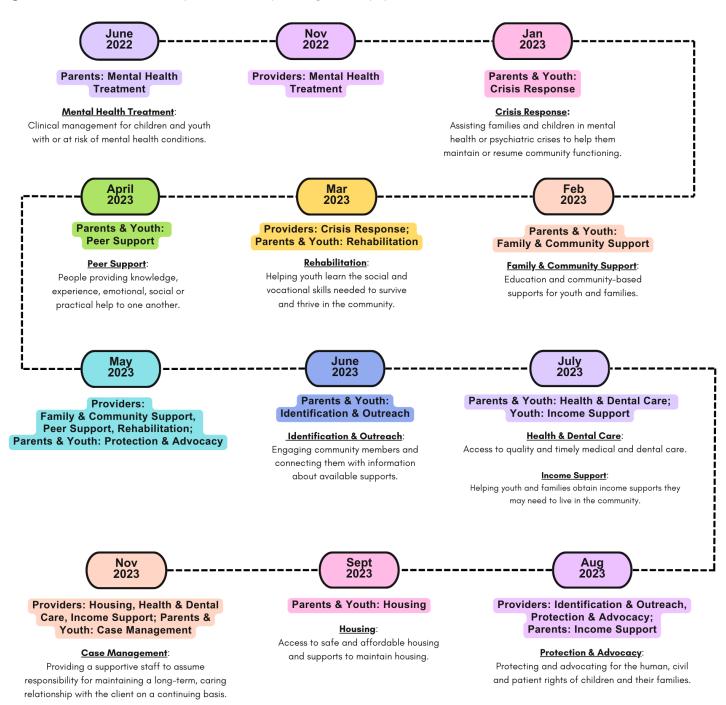
Learn more at YMHSoC.org or email arutishauser@rosecrance.org

<sup>3</sup> Happening Next. "Provider Conversation: Support and Rehabilitative Services for Youth (0-21)," Accessed April 10, 2024. https://happeningnext.com/event/provider-conversation-support-and-rehabilitative-services-for-youth-0-21-eid4so1swwok21.

The thematic analysis includes both an aggregate, high-level analysis as well as a detailed analysis section. The aggregate analysis focuses on identifying and describing the key themes that permeate across all the listening session workshops with regards to community strengths, weaknesses, and optimal systems. These themes represent the principle concepts that summarize the discussion points in a systematic and simplified manner. Additionally, this report includes a sentiment analysis, which addresses the amount of discussion that happened regarding community strengths versus weaknesses.

The detailed analysis section focuses on categorizing each listening session discussion topic (i.e., strengths, weaknesses, and optimal systems) according to its most applicable theme. Complementing the aggregate analysis, the detailed analysis allows for an in-depth perspective that extracts the main takeaways from each listening session and examines how they relate to each other in insightful ways. For more details on the overall methodology used to develop the high-level themes and their application in the detailed analysis, see the *Technical Methodology for Thematic Analysis* section in the appendix of this report.

Figure 2.3: Timeline of Community Conversations (Listening Sessions) by Month



# **AGGREGATE THEMATIC ANALYSIS**

# Themes, Definitions & Examples

The results of the aggregate analysis identified five principle themes from the entire collection of listening session notes for the different discussions on community strengths, weaknesses, and optimal systems. The following tables include each theme, a corresponding definition and two representative examples extracted from the notes.

Table 3.1: Aggregate Thematic Analysis Results - Community Strengths

<b>Discussion Topic</b>	Identified Theme	Definition & Examples
Community Strengths	Collaboration & Partnerships	<ul> <li>Service providers work together to achieve common ends.</li> <li>Example 1: UW Health and the Rockford Fire Department partnering to establish a Mobile Integrated Health (MIH) program.</li> <li>Example 2: Growing collaborations between community-based organizations and service providers (e.g., Wellness without Walls and the Wayward Society).</li> </ul>
	Accessibility & Availability of Resources	<ul> <li>Mental health services are readily accessible and available to those that need them.</li> <li>Example 1: The IRIS referral platform is being developed as a network for increasing the accessibility of care and coordinating resources.</li> <li>Example 2: Crisis phone and text resources offer youth the ability to talk to someone right away, preferring to speak with someone knowledgeable on the resources/services available in their community.</li> </ul>
	Community Support & Inclusion	All community members are able to receive supportive services and are included in the system of care framework.  • Example 1: The Liam Foundation provides support groups for LGBTQIA+ individuals.  • Example 2: Shatter our Silence provides support groups and educational resources/discussions around teen mental health and suicide prevention.
	School-based Mental Health Initiatives	Schools develop services and resources for students to support their mental health, including partnering with organizations that provide after-school programs.  • Example 1: Schools such as Roosevelt Education Center and Summit Academy are using behavioral models designed to aid at-risk youth by making their mental health a priority.  • Example 2: School are developing some initiatives to raise awareness around mental health and suicide prevention, as well as identify at-risk youth via mental health assessments.
	Empowerment & Advocacy	Advocating for and empowering individuals with mental illness and their families to overcome obstacles, obtain services and resources, and achieve better mental health outcomes.  • Example 1: Organizations promoting and advocating for mental health treatment and support services.  • Example 2: RAMP offering advocacy and independent life skills training.

**Table 3.2:** Aggregate Thematic Analysis Results- Community Weaknesses

<b>Discussion Topic</b>	Identified Theme	Definition & Examples
Community Weaknesses	Lack of Mental Health Service Access	<ul> <li>Individuals are unable to access mental health services for a wide-variety of reasons such as financial, logistical, and educational barriers.</li> <li>Example 1: Youth failing to receive critical food income and housing support due to program eligibility barriers.</li> <li>Example 2: Large amounts of barriers for health &amp; dental care supports such as lack of specialists, transportation issues, "red tape", wait times, etc.</li> </ul>
	Communication Barriers	Barriers such as inefficient systems that prevent service providers or other mental health advocates from effectively sharing information between each other or to target individuals.  • Example 1: Failures to communicate between service providers across the entire system of care can lead to the duplication of services or unnecessary services.  • Example 2: Lack of information on available resources and services in multiple languages or modalities can lead to gaps in awareness and the accessibility of resources.
	Educational Needs & Awareness	Service providers, organizations, or individuals with mental illness are ill-informed or unaware of key mental health concepts, community resources, and supports.  • Example 1: Knowledge and skill training gaps for direct support professionals about mental health needs (e.g., early signs & symptoms, having difficult conversations, available resources).  • Example 2: More resources, education, and protections in schools are needed to prevent bullying.
	Support for Families & Youth	Both parents and youth believe there is a lack of community support in identifying and managing mental health issues, especially amongst the youth population.  • Example 1: Parents feel a lack of support in helping them identify and manage mental health challenges with their youth as well as a lack of school-based accommodations that support mental, rather than just physical, health.  • Example 2: Youth desire more adult and peer mentorship opportunities and support outside of the family environment. They feel that schools also don't offer much accommodations for those struggling with mental health and "don't take it seriously".
	Systemic Issues & Prevention Efforts	Inefficiencies in the system of care such as issues that prevent individuals from receiving treatments/services or the early identification of mental health illnesses.  • Example 1: Systemic issues surrounding housing support and a lack of prevention efforts to avoid homelessness such as rental assistance and addressing generational trauma.  • Example 2: A lack of continued care, or "piecemeal" services to meet longer term care needs.

**Table 3.3:** Aggregate Thematic Analysis Results- Community Optimal Systems

<b>Discussion Topic</b>	Identified Theme	Definition & Examples
Community Optimal Systems	Accessibility & Communication	<ul> <li>Mental health services and resources are accessible to all individuals and clearly communicated to those that need them.</li> <li>Example 1: Step-down services are both accessible and available, meaning that patients receive direct communication on what treatment options exist and how they should utilize each one.</li> <li>Example 2: Procedures exist to provide thorough follow-up and guidance to aftercare when a crisis occurs.</li> </ul>
	Affordability & Funding	<ul> <li>Mental health services and resources are both available and affordable; programs that support mental health receive adequate funding.</li> <li>Example 1: Funding support for local organizations that address crisis situations as well as short-term crisis services (e.g., residential services).</li> <li>Example 2: Free or affordable job training, childcare, college/post-secondary school options, stable rent prices, etc.</li> </ul>
	Community Collaboration	Community agents that offer services are coordinated and collaborative in their efforts, efficiently assisting families navigate the system of care instead of expecting them to "figure it out".  • Example 1: There is a coordinated, inclusive referral system that efficiently connects individuals to all of the available mental health resources and services.  • Example 2: Community agencies engage consistently in outreach events, make connections with each other, and work together across various treatment modalities (e.g., coordination between medical and mental health treatment providers).
	Housing Support Services	Although already labeled as a unique Community Support System (CSS) component area, services supporting stable housing were identified as a major element of a well-functioning system of care across multiple component areas.  • Example 1: A special treatment center for adolescents that provides acute care and residential options to support transition back to school as an example of a crisis response service.  • Example 2: Housing support and rental assistance for single parents who don't meet qualification thresholds as well as available, safe housing options for homeless youth that are managed through income support services.
	Education & Training	The community is well-educated about mental health concepts as well as the services and resources that are available to them. Education and training opportunities are accessible and affordable to individuals that need them.  • Example 1: Affordable job training, certification courses, and shadowing opportunities for youth in a variety of career fields such as retail, healthcare, and trades.  • Example 2: Proactive education, support, and continued mental health counseling is available and accessible to all students.

Tables 3.1, 3.2, and 3.3, while non-exhaustive, summarize many of the key themes discussed across the listening sessions. Importantly, many of these themes are interconnected; for example, communication barriers can lead to a lack of education and awareness around mental health and systemic issues, such as failures in early identification and treatment, can delay or obstruct individuals from accessing and utilizing services.

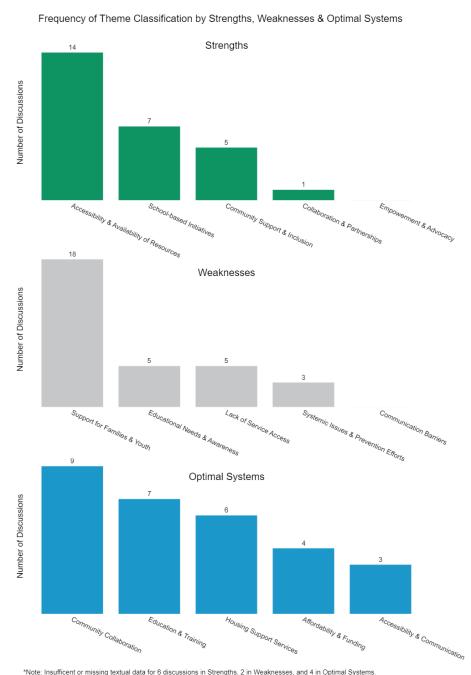
Moreover, each listening session typically covered multiples themes such as examples of accessible resources and partnerships between mental health programs for the strength-related discussions. The *Thematic Analysis* section below further analyzes the themes by attempting to characterize them based on how frequently they were discussed across the listening sessions. Finally, it is important to note that there are many interconnections between themes labeled as strengths, weaknesses, and optimal systems. In some cases, for example, participants discussed the community strengths related to the availability and accessibility of mental health service programs, often listing specific organizations that are helping the community. However, in other cases, they described how there is still a lack of accessible and available mental health programs. Taken together, these nuances illustrate the interconnectedness of all the themes.

# Thematic Analysis

Analysts at Region 1 Planning Council (R1) were also interested in measuring each theme's prevalence across the workshop sessions. By using data-driven machine learning solutions, each listening session was classified by its most prevalent theme.4 This analysis was conducted for each collection of notes on community strengths, weaknesses, and optimal systems, forming the basis of results utilized in Detailed Thematic Analysis section of this report. Figure 3.1 to the right presents the aggregated results of the classification analysis, which showcases how often each theme was identified as the predominant point discussed by participants in a listening session.

Figure 3.1 highlights that the most prevalent themes found within the strengths, weaknesses, and optimal systems notes are Accessibility & Availability of Resources, Support for Families & Youth, and Community Collaboration, respectively. Conversely, no listening sessions were directly matched to the Empowerment & Advocacy and Communication Barriers themes.

Figure 3.1: Theme Classification Results



<sup>4</sup> More information can be found regarding the machine learning models utilized in the *Technical Methodology for Thematic Analysis* section.

This does not imply that they are unimportant themes, but rather that they were not the main focal point of discussion within any of the listening sessions. Since many of the themes are interconnected, receiving a small number of classifications may actually be indicative of a "sub-theme" discussion topic, which may be related to many of the other themes, but is not an overarching or encapsulating theme. A clear example is the School-based Initiatives theme being a sub-theme for Accessibility & Availability of Resources within the community strengths discussions.

To further support this idea, qualitative review conducted by Region 1 Planning Council analysts revealed that the Empowerment & Advocacy and Communication Barriers themes were frequently brought up topics across many of the listening sessions, but oftentimes they were not the primary point of discussion. In contrast, taking Accessibility & Availability of Resources from community strengths as an example, many conversations centered around the plethora of mental health programs available throughout Winnebago County, highlighting why it received many classification results. The optimal systems discussions had relatively balanced classification results across the listening sessions, indicating that group participants discussed a variety of different topics, ranging from collaboration among mental health service providers and organizations to affordable and well-funded programs. The *Detailed Thematic Analysis* section goes into greater detail on the thematic classification analysis for each CSS component area, further investigating connections between themes discussed by providers, parents and youth.

# SENTIMENT ANALYSIS

Sentiment analysis was also conducted on the listening session notes to examine the amount of discussion that occurred regarding community strengths versus weaknesses. The underlying concept is that the number of *processed* words found within the notes for each discussion is indicative of the amount of thoughts and ideas that were shared, accounting for the relevant notetaker. Processed words are simply all of the remaining words after textual data cleaning and processing steps such as the removal of non-important terms or phrases (i.e., stop words). The sentiment analysis was performed by calculating the difference between the number of processed words in the strengths versus weaknesses section for each listening session, which accounts for the notetaker by assuming that they recorded notes on both discussion points within the same session. Figure 4.1 on page 13, illustrates the results, broken out by CSS component area and type of participant.

The results of the sentiment analysis indicate that the majority of listening sessions had more conversation regarding weaknesses than strengths based on the amount of notes taken, after adjusting for the notetaker. Strength-based discussions had an average of 57 processed words per listening session while weakness-based discussions had an average of 123. A difference of 334 words for Rehabilitations Services, as an example, is therefore indicative of a large amount of discussion about weaknesses, but relatively little discussion about strengths. The exceptions to this trend were provider-specific conversations surrounding Client Identification & Outreach, Crisis Response Services, Housing, Income Support, and Family & Community Support in which there were relatively more notes on strengths than weaknesses. In fact, providers universally had the most balanced amount of notes with relatively equal parts discussion on strengths versus weaknesses.

Conversely, parents had significantly more notes taken about weaknesses than strengths, indicating that they have had more to say about the former. Youth conversations also had more notes taken on weaknesses than strengths, but to a lesser extent than parents. In particular, listening sessions on Health & Dental Care, Family & Community Support, and Rehabilitation Services had the most significant discrepancies between the amount of notes taken on strengths versus weaknesses.

Figure 4.1: Sentiment Analysis Results



# **DETAILED THEMATIC ANALYSIS**

Figure 3.1 in the *Aggregate Thematic Analysis* presented the overall results of the thematic analysis, illustrating how often each theme was determined to be the most prevalent one across every listening session. This section goes into extensive detail on the results of that analysis by providing the individualized results, broken out by theme, CSS component area, and type of participant. Figure 5.1 on the next page contains this information. An important point to note is that the classification results are based on the entirety of textual information available for the particular listening session. As presented in the *Sentiment Analysis* section, there is generally a wealth of textual data available on community weaknesses and optimal systems for parents and youth, but relatively fewer notes on community strengths. This is an important consideration when thinking about the individual results for community strengths.

Each table within Figure 5.1 contains the thematic classification results for the discussions on community strengths, weaknesses, and optimal systems. The tables are color coded based on primary colors (red, yellow, and blue), secondary colors (purple, orange, and green), and a composite color (black). Primary colors indicate that only one discussion was matched to that particular theme. For example, in the strength-based discussions on Client Identification & Outreach, the classification results indicate that the most prevalent theme discussed for providers (blue) was Accessibility & Availability of Resources. Specifically, providers touched on telehealth opportunities, resource fairs, transportation assistance programs, insurance coverages for some therapeutic services, outreach programs funded through the Winnebago County Community Mental Health Board (WCCMHB), and a host of other resource providers.

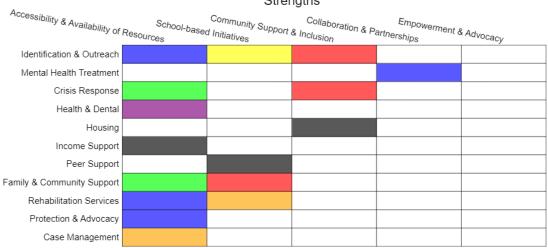
Secondary colors are indicative of joint classification results between participant types, whether it be providers & parents, parents & youth, or providers & youth. This means that two of the discussions matched to the same theme. An example from the community weaknesses discussions is Crisis Response, which was matched to the Support for Families & Youth theme for both parents and youth, meaning the label is orange. In this case, both parents and youth showed similar sentiments by discussing the lack of community supports available for families struggling with a youth who has a mental health crisis, such as issues with inpatient services for youth and parents feeling uneducated and unsupported by the current care system. Providers focused more on the specific issues arising from the care system such as non-continuous services, disconnected service providers without a central network of care, and a lack of preventative efforts or early intervention services, which is why that discussion was matched to the Systemic Issues & Prevention Efforts theme.

Finally, the color black is indicative of a discussion that had the same classification results between providers, parents, and youth, suggesting a high degree of correlation or similarity between the themes discussed. An example from the optimal systems category is Peer Support, which was matched to the Community Collaboration theme for all three types of group participants. Providers discussed the importance of coordinating activities among mental health partnership agencies, reducing the duplication of community resources/services, and creating a community referral system and other community-wide interactive resources to increase collaboration. Youth and parents discussed having a variety of support groups, mentorship/volunteering opportunities, and other activities both inside and outside schools that increase community collaboration and support.

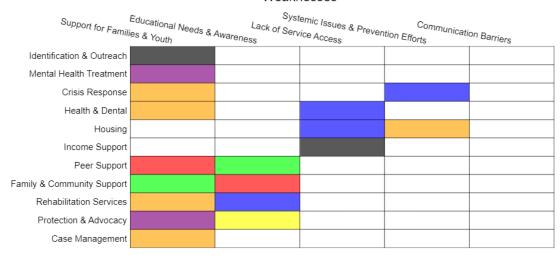
Figure 5.1: Detailed Thematic Analysis Results

#### Detailed Thematic Analysis Overview

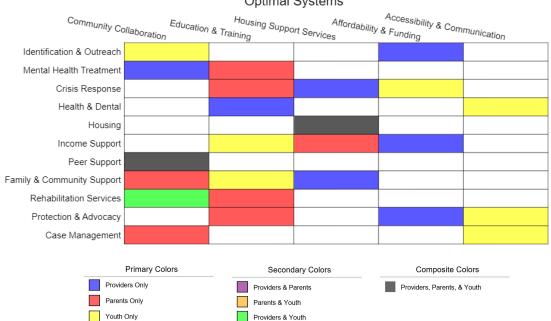
#### Strengths



#### Weaknesses







# **REPORT SUMMARY**

While this analysis incorporates a significant amount of detail that highlights the major themes found within the listening session notes, the following four key findings standout as especially important.

## **Overall Themes**

For the discussions on community strengths, the following themes were identified:

- 1.) Collaboration & Partnerships
- 2.) Accessibility & Availability of Resources
- 3.) Community Support & Inclusion
- 4.) School-based Mental Health Initiatives
- 5.) Empowerment & Advocacy

#### For community weaknesses:

- 1.) Lack of Mental Health Service Access
- 2.) Communication Barriers
- 3.) Educational Needs & Awareness
- 4.) Support for Families & Youth
- 5.) Systemic Issues & Prevention Efforts

#### And finally, for community optimal systems:

- 1.) Accessibility & Communication
- 2.) Affordability & Funding
- 3.) Community Collaboration
- 4.) Housing Support Services
- 5.) Education & Training.

# Sentiment Analysis

Generally, discussion was primarily centered around community weaknesses as opposed to strengths. Providers had the most balanced conversations between the two, followed by youth, and lastly parents. Health & Dental Care, Family & Community Support, and Rehabilitation Services were the listening sessions with the most significant amount of disparities between conversation on weaknesses compared to strengths.

# **Detailed Analysis**

In many cases, there was a large amount of overlap between the major themes identified for each listening session between providers, parents, and youth. Some notable examples are strength-based discussions on Housing, Income Support, and Peer support; weaknesses-based discussions on Identification & Outreach and Income Support; and optimal systems-based discussions on Housing and Peer Support. During these discussions, there was a general consensus on the major theme between providers, parents, and youth.

# APPENDIX: TECHNICAL METHODOLOGY FOR THEMATIC ANALYSIS

# Data Collection & Structuring

Analysts at Region 1 Planning Council received and compiled all raw textual data from YMHSoC, consisting of detailed notes taken by discussion facilitators for each individual listening session. These notes were organized into commasseparated values (CSV) files with the name of the listening session (e.g., Youth: Family and Community Supports), the month of the listening session, the raw textual data, and the discussion category (i.e., community strengths, weaknesses or optimal systems). Missing data was observed for the Youth: Mental Health Treatment and Providers: Case Management listening session workshops. Moreover, within some listening sessions, participants did not touch on a particular discussion category as described below:

- Community optimal systems for Parents: Health & Dental Care and Parents: Identification & Outreach
- Community strengths for Parents & Youth: Protection & Advocacy, Parents: Treatment, and Youth: Health
   & Dental Care

All data visualizations in this report include notes on missing and/or insufficient data when applicable.

## **Data Processing**

Data processing mainly involved standard textual data cleaning steps used in most natural language processing (NLP) models. These steps include data transformations such as removing excess characters and punctuation, stripping blank spaces from words, removing stop words — or insignificant words such as "the", "has", or "as" — and an NLP process known as tokenization. The purpose of the data processing procedures was to properly clean the raw textual data so that it could be optimally fed into NLP machine learning models with the best performance results possible.

## **Data Analytics**

Thematic analysis of the processed textual data was completed in two major stages: identifying the top five themes from each discussion category (strengths, weaknesses, and optimal systems) and then classifying each listening session discussion according to its most prevalent or predominant theme. Stage one utilizes a Large Language Model (LLM) available through OpenAI to synthesize all of the textual data and return the top five themes identified throughout every listening session for strengths, weaknesses, and optimal systems. Tables 3.1, 3.2, and 3.3 in the report provide an overview of the results of this analysis as well as definitions and examples from the text of each theme.

Stage two involved generating labeled classifications for each listening session discussion based on its most prevalent theme. For example, as predicted by the classification algorithm, the prevailing theme surrounding the Parents: Protection & Advocacy discussion for optimal systems was "Education & Training" because the participants mainly focused on how an optimal system would implement a variety of anti-bullying efforts through proactive education and training for school staff, youth, and parents. Conversely, the Youth: Protection & Advocacy discussion for optimal systems was classified by the algorithm as the theme Accessibility & Communication since they mainly discussed how an optimal system would provide access to care and support for people of all socioeconomic backgrounds.

To develop the classification algorithm, synthetic data was generated by the LLM that provided a labeled training dataset consisting of over twenty-six thousand example sentences that matched to a particular theme from the strengths, weaknesses, or optimal systems discussions. Analysts confirmed that the training dataset consisted of balanced classes, meaning that each individual theme had roughly the same number of observations to be used for training classification

models. The minimum number of observations for a particular theme was 1,621 and the maximum number was 1,904 so this data characteristic was confirmed.

Across the strengths, weaknesses, and optimal systems, training data, analysts computed accuracy, precision, and recall scores for three separate classification models: multinomial naive bayes classifier, logistic regression, and support vector machine (SVM). An average accuracy score was computed for each model across the individual accuracy scores for strengths, weaknesses, and optimal systems with the highest being 95.9% from the SVM model. Therefore, the SVM model was used to make classifications predictions on the "unlabeled data", or the actual listening session textual data. The results of the NLP text classification models are presented in detail in the *Detailed Thematic Analysis* section of the report.



Youth Mental Health Systems of Care (YMHSoC) ymhsoc.org



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