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Practice Summary & Implementation Guidance

Rapid Adolescent Prevention Screening (RAAPS)

The Rapid Adolescent Prevention Screening© (RAAPS) is a standardized, validated risk screening and health education solution embedded in digital empathy, developed to support professionals in reducing the risk factors impacting the health, well-being, and academic success of youth, and recognized by leading health organizations as an effective tool for time efficient and effect comprehensive youth risk screening.

Location	Topic Area	Setting
Michigan	Health Screening/Promotion	Clinical

Population Focus	NPM	Date Added
Adolescent Health	NPM 6: Developmental Screening; NPM 7.2: Injury Hospitalization – Ages 10 to 19; NPM 8.1: Physical Activity – Ages 6 to 11; NPM 8.2: Physical Activity – Ages 12 to 17; NPM 9: Bullying; NPM 10: Adolescent Well-Visit	May 2020

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Section 1: Practice Summary

PRACTICE DESCRIPTION

According to the U.S. Centers for Disease Control and Prevention (CDC) Youth Risk Behavior Surveillance System (YRBSS), nearly 75% of serious injury and premature death in youth is a result of preventable, risky behaviors. Recognized by leading health organizations as an effective and time efficient clinical tool, the Rapid Adolescent Prevention Screening© (RAAPS) is a standardized, validated youth risk screening and health education solution developed to support professionals in reducing the risk factors impacting the health, well-being, and academic success of youth 9-24 years. RAAPS overcomes the real-world barriers of professional's time, workflow, knowledge, and skills as well as barriers such as youth honesty and engagement.

RAAPS **digitally empathetic technology** eliminates the most common real-world barriers to risk screening:

- **Efficiency** completed by most youth in just 5 minutes. Professionals know key risks before they meet with youth face-to-face.
- **Efficacy** has been proven that youth are more honest with a technology interface when disclosing risks than with traditional oral or paper survey methods. With technology more risks are identified, and youth lives improved. Plus, youth were involved with every aspect of the RAAPS development – ensuring the questions, technology design, and images are relevant and engaging.
- **Digital Empathy:** RAAPS takes an interactive, cutting-edge approach to technology-based assessment and coaching by dynamically embedding the core principals of digital empathy, such as concern and caring for others expressed through computer-mediated communications, into the user experience. A personalized user experience encourages youth to be more honest allowing professionals to identify those youth in greatest need and provide resources and support for care management.
- **Insight** on real time reporting provides easy access to data (identify trends, track outcomes, tailor programming)
- **Standardization** ensures every youth are asked the same questions, the same way, every time.
- **Evidence-based** tailored risk education is automatically generated for youth when they complete RAAPS, tailored to the risk information they shared, and health literacy features include an audio option for listening to the text as well as reading. The tailored health messages are also available to professionals at-a-glance and use behavior-change science to help navigate difficult conversations regardless of their level of familiarity or comfort with the

topic. Education provided includes ideas for behavior change, statements to increase self-efficacy, and national resources.

Given that brain development changes dramatically between ages 9 to 24, an older child (ages 9-12) needs questions to be framed very differently than a teen (ages 13-18) in order to understand a question and respond appropriately. In addition, risk behaviors change over time – sexual activity, unsafe driving, and binge drinking are examples of risks that tend to be age-related. To help professionals effectively address these changes, RAAPS is tailored for age-specific risks and language, with three distinct tools available in English and Spanish:

- Older Child – for ages 9-12
- Adolescent – for ages 13-18
- Young Adult – for ages 19-24

CORE COMPONENTS & PRACTICE ACTIVITES

RAAPS helps you identify and reduce risks in 3 simple steps:

1. Assessment: comprehensive screening tools tailored by age for the most relevant risks, reading level, and brain development.
2. Discussion: health education based on behavior change methodology shown to be most effective at reducing youth risk.
3. Results: real-time reporting to track everything from risk behaviors and outcomes at the individual level to risk trends and needs across an entire youth population.

RAAPS Content

Licensing RAAPS content gives you access to all versions of RAAPS in both PDF and Word format. You also receive:

- Professional Support (Coaching Tips and our Out and Healthy LGBTQ Support Guide)
- Youth Health Messages
- Parent Resources
- Office Resources (sample privacy/confidentiality statement, workflow guidance, and office posters)

Organizations can review results of an individual youth over time by storing completed assessments in the EHR or patient file. EHR "alerts" can serve as a reminder for annual screening and risk coaching.

RAAPS Technology

With the all-in-one cloud-based system, youth complete the screening on any device with internet access. Unique benefits include audio options to increase health literacy, digital empathetic technology, and an interface developed with youth-input to maximize engagement and honesty. RAAPS technology also automatically provides tailored health education and recommended national resources to youth based on the risks identified. Top risks are highlighted in the "at-a-glance"

dashboard enabling professionals to easily identify key topics for follow-up discussion. Integrated tools ensure quick referrals, electronic documentation and tracking for care coordination.
The RAAPS system automatically captures data over time at the individual and population level and is accessed through the easy to use, built-in analytics to:

- Support targeted follow up & case management, direct programming & services, and facilitate CQI projects
- Report on risk factors, trends and program outcomes over time

Core Components & Practice Activities		
Core Component	**Activities**	**Operational Details**
Implementing	Licensing and implementing RAAPS	A license is required for use of RAAPS. Implementation into the organization's workflow is then needed for successful use.
Youth Risk Screening	Screening of youth risk factors	Accurately screens and routinely rescreens the risk factors most impacting youth health and well-being.
Connecting	Brief interventions for professionals including referrals and linkages to external community resources as needed	The professional reviews the results of the risk screening and meets with youth to discuss and provide risk reduction coaching. Professionals may also facilitate referrals and linkages to external community partners.

HEALTH EQUITY

RAAPS can be, and is, used in every type of youth serving organization, regardless of geography, demographics or socioeconomic status. In fact, RAAPS is a critical tool for identifying at risk youth who would otherwise fly under the radar. Developed in partnership with the American Public Health Association (APHA) Center for School, Health and Education (CSHE), RAAPS for Public Health (RAAPS-PH) builds on the core RAAPS assessment, with an additional question set that captures the prevalence of social determinants of health and environmental conditions that threaten youths' health and progress toward graduation. RAAPS-PH uncovers chronic exposure to social and environmental stressors (such as hunger, homelessness, teen pregnancy, and discrimination) that threaten healthy brain, cognitive, and social-emotional development. A review of RAAPS-PH findings year over year shows how use of RAAPS-PH can provide the opportunity to identify and address risk to make a difference in the lives of youth:

- 69% now receive enough food

- 55% no longer miss school
- 53% resolved feelings of depression
- 33% are now getting a "C" or better in all classes

Read more in the case study: https://possibilitiesforchange.org/wp-content/themes/risusagency-child/case-studies/APHA.pdf

EVIDENCE OF EFFECTIVENESS

RAAPS has been validated as an efficient and effective comprehensive youth risk screening tool and depression screening tool. A list of our peer-reviewed validation study publications can be found here. A year-end review of 12,751 youth who completed the RAAPS twice (up to 15 months apart) between January 2017 and December 2018 shows that professionals using RAAPS are making significant differences in the lives of youth – following are a sample of the findings.

	At Risk	Improvement in Identified At Risk Youth
	Initial	*Initial to Follow-up*
Anger management	32%	***49%*** *now managing their anger*
Depression	30%	***45%*** *resolved feelings of depression*
Physical activity	19%	***50%*** *are now regularly active*
Bullying	14%	***66%*** *no longer report being bullied*

Successful implementation of risk screening with RAAPS requires buy-in from organization's leadership, and a designated site administrator responsible for providing access to the RAAPS screening tools to all organization personnel intending to use them. The position of the site administrator may vary depending on the organization type but is generally someone who is able to guide the implementation and workflow for other personnel involved. Possibilities for Change provides a robust online training and resources to support onboarding for organizations.

Section 2: Implementation Guidance

STAKEHOLDER EMPOWERMENT & COLLABORATION

Our key stakeholders are youth and the professionals that treat and support them. RAAPS was originally developed in 2006 by a team of researchers and multi-disciplinary clinicians at the University of Michigan with strong youth involvement every step of the way. Current literature on youth risk along with U.S. Centers for Disease Control and Prevention (CDC) youth risk behavior and morbidity and mortality data from the Youth Risk Behavior Surveillance System (YRBSS) was reviewed to determine moderate-high risk factors to include in the RAAPS. Questions were developed and Dr. Salerno and her team worked with youth directly, to gather feedback on comprehension and question wording. This process is repeated biennially with additional stakeholder feedback of over 3500 professionals actively using RAAPS. These professionals are surveyed to gather their experience and feedback on each of the RAAPS questions. These findings are incorporated into the biennial process of updating RAAPS, prior to the review by a panel of youth to ensure accuracy in question comprehension and relevance in language choice.

REPLICATION

RAAPS is used to screen nearly 50,000 youth annually in medical practices, school-based health centers, schools, and other youth serving organizations in over 450 agencies across the U.S. In a survey of individuals using RAAPS, 98% would recommend it to other providers and professionals working with youth.

Since its launch in 2006, RAAPS has also been recognized by several leading health organizations for use as a clinical tool for adolescent risk assessment:

- US Department of Health and Human Services Office of Adolescent Health (OAH)
- Agency for Healthcare Research and Quality (AHRQ)
- Society of Adolescent Health and Medicine (SAHM)
- National School Based Health Alliance (SBHA)
- American Academy of Pediatrics (AAP)
- Children's Hospital Association (CHA) - RAAPS-PH

Testimonials from RAAPS users include:

- "Since our practice adopted RAAPS, there has been a significant shift… with the knowledge gained through simple, tech savvy screening in a population who notoriously does not talk to adults." DNP, PNP | Federally Qualified Health Center
- "RAAPS gives providers the ability to discuss sensitive subjects… For many youths, RAAPS gives them the ability to ask for help when they are too afraid to ask out loud." FNP | School-Based Health Center
- "We prevented what would have been a tragedy – a student had a plan to commit suicide that very day. With the information we learned in RAAPS, we were able to get the student counseling and admission to in-patient care that they needed." DNP, PNP | School-Based Health Center
- "Sometimes we see patients, address their needs, but don't have a chance to discuss other things. RAAPS assists with starting that conversation." NP | School-Based Health Center
- "RAAPS gives the doctors a starting point of what's important for each teen; it helps them tailor and focus the visit to use their time with the patient more effectively. It has been successful in identifying really important risks and in learning things we wouldn't have before." NCQA-recognized, patient-centered medical home in Cary, North Carolina
- "It was a little dire to find out what these kids are living with every day – they are just trying to go to school, yet they have this heavy burden—but it was so important that we did this. Having this data will help drive all of our work going forward." School-wide screening across an entire county with the Pender Alliance for Teen Health (PATH)
- "Technology and teens go hand in hand. So, the on-line screening was great. The teens had a feeling of anonymity and felt that technology offered better confidentiality. Teens might come into the centers multiple times for stomach aches or headaches, but sometimes these ailments can be a manifestation of problems at home, bullying at school, or fighting with a boyfriend or girlfriend. RAAPS helped us more accurately and quickly pinpoint possible reasons for these physical health issues." Michigan Department of Community Health | Meeting the Challenges of Risk Screening in Michigan's School Based Health Centers

We have also completed case studies on the use of RAAPS by multi-disciplinary professionals in various settings. Below is an excerpt of a case study illustrating effective workflows for implementing risk screening across multiple settings.

Workflows that Work: Integrating Adolescent Risk Screening in Primary, Family and Pediatric Practice
Excerpt: Risk Screening in the Adolescent Medical Home

The University of Michigan Adolescent Health Initiative (AHI) was established to help healthcare providers, health centers, health systems, and youth-serving agencies improve their care for adolescents. For AHI, the best care includes annual adolescent risk screening using a comprehensive, confidential, standardized instrument. AHI staff spend a lot of time helping providers develop and integrate workflows for new processes, like risk screening, as part of AHI's Adolescent Champion model.

Lauren Ranalli, MPH is the director at AHI and likes RAAPS because of its shorter length, and the fact that it still covers a comprehensive landscape. Ranalli adds, "We work with health centers that use a variety of risk screening tools. With RAAPS, it is nice to have one brief tool that can address a broad range of risk issues. RAAPS is designed in a way that makes it easy for providers to quickly and easily identify areas that they need to discuss and follow-up with their patients. It's been vetted by youth and is up-to-date. Plus, it's confidential and technology-based, so youth are engaged."

The University of Michigan Saline Health Center is one of the sites working with the AHI team. As an Adolescent Champion in AHI's program, Pediatrician Steve Park, MD, led the process of selecting and integrating RAAPS at the Saline Health Center. To ensure confidentiality for adolescents in the Saline Health Center, a private area in the waiting room was set-up with a kiosk (safe from parental shoulder surfing) for patients to take the RAAPS screening before their appointment. Once in the exam room, a doctor reviews the results with the patient privately before the parents are brought in for the remainder of the appointment. Dr. Park implemented this approach because studies show adolescents are more likely to be honest with their answers when completing a screening privately and online, compared to answering a provider's questions face-to-face.

According to Ranalli, many of the providers AHI has worked with have identified issues with RAAPS, such as depression and eating disorders, that hadn't come up in previous encounters. "Providers will say, 'I guess I wasn't asking the right questions, or asking in a way that they felt comfortable disclosing…I've been seeing this patient for years and it's never come up before.'" The staff at the Saline Health Center has had similar outcomes. "RAAPS has revealed things that are going on that we wouldn't otherwise have picked up on," Dr. Park shared. "The office as a whole has experienced a high degree of satisfaction from their adolescent patients because they are able to talk to their doctor about things they want to, without their parents around."

Getting that parental separation isn't always easy. But according to Ranalli, the issue isn't always the parents themselves but the lack of training provided to physicians and staff. She explained, "One of the biggest concerns among MAs and providers is the perception of how this exchange is going to go, the perceived barrier of separating parent from youth." AHI recommends developing scripts and having role-playing sessions to help MAs with the process, and also having physicians explain the importance of risk screening to both the parent and patient. Dr. Park advised, "Parents will want to know: 'Why are you asking these questions? My child is too young…' or 'I want to know the results of the assessment.' I recommend practices develop a common, agreed-upon language of how to talk to parents so everyone will respond the same way to the questions and objections they will have." Ranalli agreed that a process that is embraced and executed at all levels of the practice is a hallmark of an effective risk screening workflow. When asked what the most important elements of risk screening with adolescents in a primary care setting are, Ranalli summarized: "Use a comprehensive, accessible tool that speaks to teens, and can be used in a confidential manner. The confidential format is critical, and can be one of the biggest opportunities for improvement in primary care settings."

See full case study for more. Additional case studies showcasing successful use of RAAPS with different populations, in various settings and locations are available here.

INTERNAL CAPACITY

The team at Possibilities for Change is continually assessing feedback and trends to create supplementary materials to support professionals and engage parents in the screening process, helping to ensure a strong and cohesive circle of care. These materials include Motivational Interviewing Training for professionals and Teen Speak parent materials and training support. Additionally, our Teen Speak Training of Educators prepares professionals to equip parents with effective, real-world communication strategies to reduce youth risk factors and build strong family relationships. Trainings can be facilitated in many ways to meet the needs of participants – as workshops, book clubs, lunch and learns, one on one – in person or virtual, organizations choose what works best for them.

PRACTICE TIMELINE

Timeline for implementation varies depending on the organization size, needs and workflow. Below is a sample of some of the key steps:

Phase: Planning/Pre-Implementation		
Activity Description	**Time Needed**	**Responsible Party**
Internal buy-in obtained for licensing RAAPS	*N/A.*	*N/A.*
Internet access and device access confirmed	*N/A.*	*N/A.*
Finalized license agreement and payment received	*N/A.*	*N/A.*

Phase: Implementation		
Activity Description	**Time Needed**	**Responsible Party**
Site admin complete database customization	*N/A.*	*N/A.*
Technology & Workflow call with P4C Rep	*N/A.*	*N/A.*
RAAPS technology access given	*N/A.*	*N/A.*
Go Live	*N/A.*	*N/A.*

Phase: Sustainability		
Activity Description	**Time Needed**	**Responsible Party**
Annual license renewal	*N/A.*	*N/A.*

PRACTICE COST

Costs varies depending on organization. Contact info@pos4chg.org to receive a price quote for licensing RAAPS.

LESSONS LEARNED

Tracking risk factors at the population level is the most direct and valuable way to support youth. The thousands of professionals that have integrated RAAPS into their workflow have found that quality of care has substantially improved with the help of real-time data and reporting. With RAAPS reporting, professionals gain valuable insight into population data that can be used to direct programming and services, facilitate continuous quality improvement projects, describe population need, and report organization or project outcomes.

RAAPS Innovative technology collects data to help answer key questions:

- What are the greatest risks in my youth population?
- What risk disparities exist in my youth population?
- Are we seeing improvements in youth risks over time?

RAAPS population reports have been used successfully by organizations to showcase need. These reports are continually updated based on professional's feedback to provide the most robust information to organizations and professionals on their populations. Two newly created reports allow for a deeper understanding of subpopulations at risk and risk changes over time for those youth with identified risks. An easy to use reporting infographic was also developed to assist organizations in presenting their youth data visually. (See Appendix Table 2 for more information.)These reports along with others within the RAAPS technology-based system have led to positive changes in practice, youth programming, and resources or referrals provided to youth.

Additionally, Possibilities for Change releases annual RAAPS overview data to help exhibit and identify youth health trends and inform interventions. Organizations can use this data to benchmark their youth populations and showcase need and disparities in risk areas in their communities. The RAAPS risk over time report provides a comprehensive review of positive risk changes over time across youth populations, helping to support the case for prevention (which can be difficult to quantify).

NEXT STEPS

RAAPS is updated biennially to incorporate the latest in evidence-based guidelines and changing trends in youth risks. The type and prevalence of youth risks change over time. Vaping, texting while driving, and the number of youths struggling with anger management or carrying a weapon for protection are just a few examples. In addition, the language youth use to describe these risks changes dramatically over time and must be updated for relevance and engagement. Each update begins with a comprehensive literature review of journal publications and youth statistics data from the CDC, NIH, and WHO. In addition, over 3500 clinicians and professionals actively using RAAPS are surveyed to gather data on the assessment questions and youth responses. These findings are incorporated into the update prior to the final step of the process—a panel of youth and young adults

are engaged to review the updates in order to ensure accuracy in question comprehension and relevance in language choice. The current RAAPS in use is Version 8 (2020).

RESOURCES PROVIDED

- Case studies showcasing successful use of RAAPS with different populations, in various settings and locations are available here.
- Possibilities for Change released a white paper on RAAPS ROI: Full ROI White Paper
- The materials included when licensing the RAAPS package include:

ITEM	DESCRIPTION
Let's RAAP	**Overview of RAAPS and the science behind the assessments.** This document answers questions about RAAPS history, development, validation, endorsement, health messages, and billing.
Getting Started with RAAPS	**Getting Started with RAAPS** document provides suggestions for implementation – including process and workflow changes to maximize adoption of RAAPS to ensure a smooth integration with staff, youth, and their families. **Risk Screening Infographic** provides an overview of risk screening considerations to improve services and outcomes. **Health Rights for Teens** is an example of a privacy/confidentiality statement that may be shared with youth prior to the start of their visit, service or program. **Workflow Infographic** provides information on creating clinical workflows to ensure ease of risk screening for youth and staff. **Office Posters** - Print-ready RAAPS wall posters to let youth and parents know RAAPS is a standard part of services provided within your organization.
RAAPS Assessments	**RAAPS assessments in English and Spanish:** Older Child – developed for ages 9-12 Standard – developed for ages 13-18 College Age – developed for ages 18-24

	Each of the above files are provided in a user-friendly PDF. The PDF is formatted for ease of use by both youth and professionals. All positive answers are identified in the right column of responses on the document.
Professional Support	**Coaching Tips** - Support for professionals in discussing risk behaviors, including suggestions for starting the conversation and responding to positively answered RAAPS risk questions. **Out and Healthy LGBTQ Support Guide** - Additional information and resources for professionals in working with LGBTQ youth and their families.
Youth Health Messages	**Risk-specific, evidence-based messages that you can distribute to youth** for the specific risks they have identified on RAAPS. These messages utilize behavior change science and include ideas for taking action to be safer and for seeking help when needed. They are organized by category of risk with RAAPS question numbers included to identify which message corresponds with each question.
Parent Resources	**Parent Brochure** - Information for parents on youth risk screening and why it is important. Includes an introduction to RAAPS and helps to explain the screening process – including the importance of privacy and confidentiality. **Parent FAQ** – Provides talking points for the most common concerns of parents (confidentiality, privacy, sensitive risk topics). Providers can share directly with parents or use as a reference when addressing parent concerns.

APPENDIX

- *Appendix Table 1: RAAPS Potential Public Health Cost Savings in 2019*

RAAPS Potential Public Health Cost Savings in 2019			
RAAPS Risk Category	Potential Annual Public Health Costs for RAAPS Population	% No Longer at Risk after RAAPS intervention[2]	Potential Annual Public Health Cost Savings with RAAPS Utilization
Helmets (Non-Use)	- $795,700	42%	$334,194
Seatbelts (Non-Use)	- $943,637	52%	$490,691
Unprotected Sex (Pregnancy & STIs)	- $1,892,371	58%	$1,097,575
Obesity (Diet & Exercise)	- $28,215,000	48% (average[38])	$13,543,200
Suicide	- $17,810	45%	$8,015
Substance Abuse (Alcohol & Tobacco)	- $3,503,510	39% (average[39])	$1,366,369
Total potential public health costs	**- $35,368,028**	Total Potential savings with RAAPS	**$16,840,044**

**Due to the nature of youth intervention, annual savings will compound over time, so these numbers are very conservative.*

- *Appendix Table 2: Reporting Type*

Report	Description
Risk Over Time	Identifies positive behavior changes over time in youth completing more than one survey.
Subpopulation Risks	Allows you to dig deeper into the risk behaviors for specific subpopulations of youth you identify.
RAAPS Reporting Infographic	A customizable tool that allows you to visually present your organization's data in a user-friendly format.
Risk Ranking (Top Ten Risks)	Overview of population risks ranked by prevalence.