

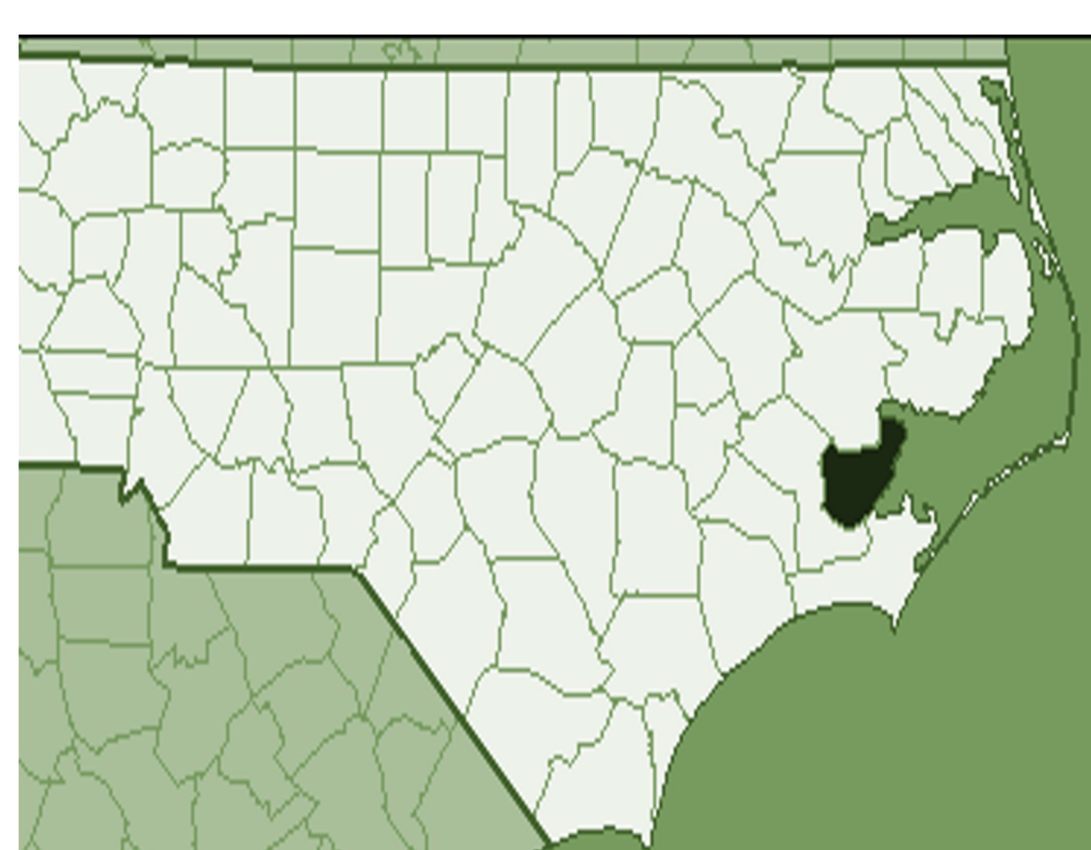
## Objectives

Expanding upon the 2021-2022 Capstone Team's work, this project aims to:

- Evaluate existing HeartWorks data to identify gaps in data necessary to evaluate the efficacy of HeartWorks' afterschool program on children's mental health and academic performance
- Create a logic model describing HeartWorks' afterschool program
- Identify and pilot screening tools for children's mental health that can be adapted by HeartWorks afterschool and summer programs.
- Create a mini directory of grant opportunities for funding since the HeartWorks afterschool and summer program will not receive the 21st Century Learning Center grant this upcoming fiscal year

## Background

- Pamlico County is small, rural NC county that is majority white. 15.3% live in poverty.
- Pamlico has high incidence of mental health issues including suicide, substance abuse, and others.
- Pamlico experiences challenges in mental health care access. Pamlico County has not met the NC Institute of Medicine's (NCIOM) target ratio of 1 primary care provider to every 1,500 patients.
- Pamlico county has lower percentage health insurance coverage in comparison to the rest of North Carolina.
- HW is a non-profit that offers an afterschool program and a summer program to children grades K-8. Their programs focus on addressing physical/mental health



Pamlico, North Carolina



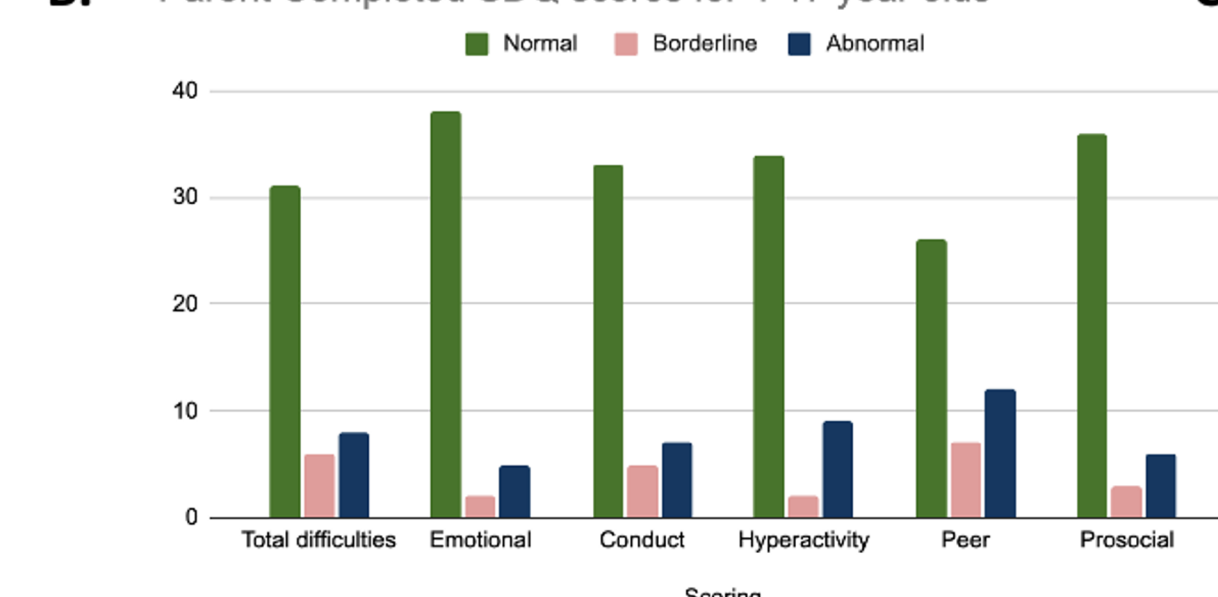
Classroom at HeartWorks

## SDQ Pilot Survey Findings

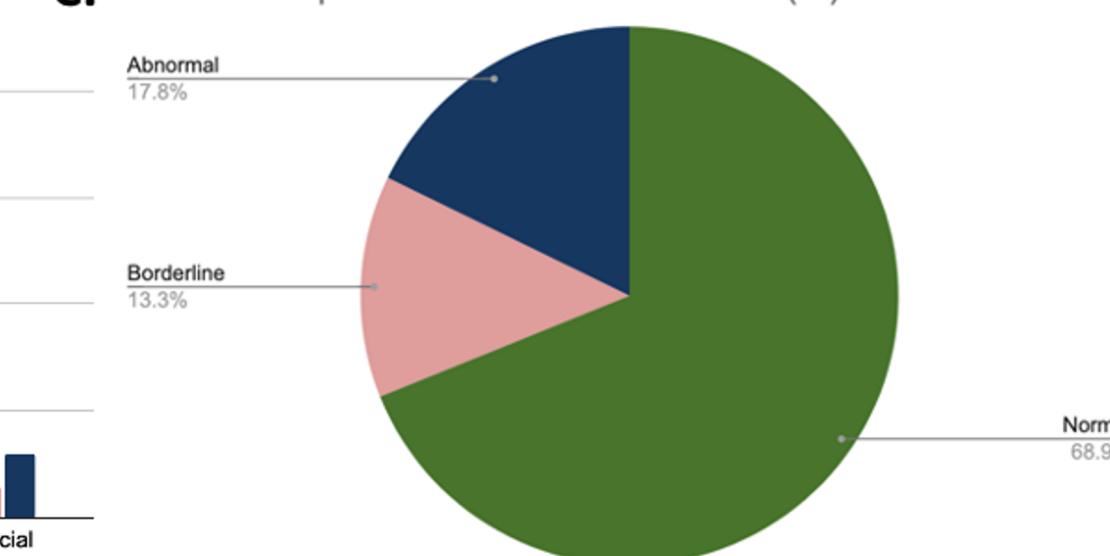
### A. SDQ Scoring Guidelines

SDQ Scoring	Normal	Borderline	Abnormal
<b>Total difficulties</b>	0-11	12-15	16-40
<b>Emotional</b>	0-3	4	5-10
<b>Conduct</b>	0-2	3	4-10
<b>Hyperactivity</b>	0-5	6	7-10
<b>Peer</b>	0-2	3	4-10
<b>Prosocial</b>	8-10	6-7	0-5

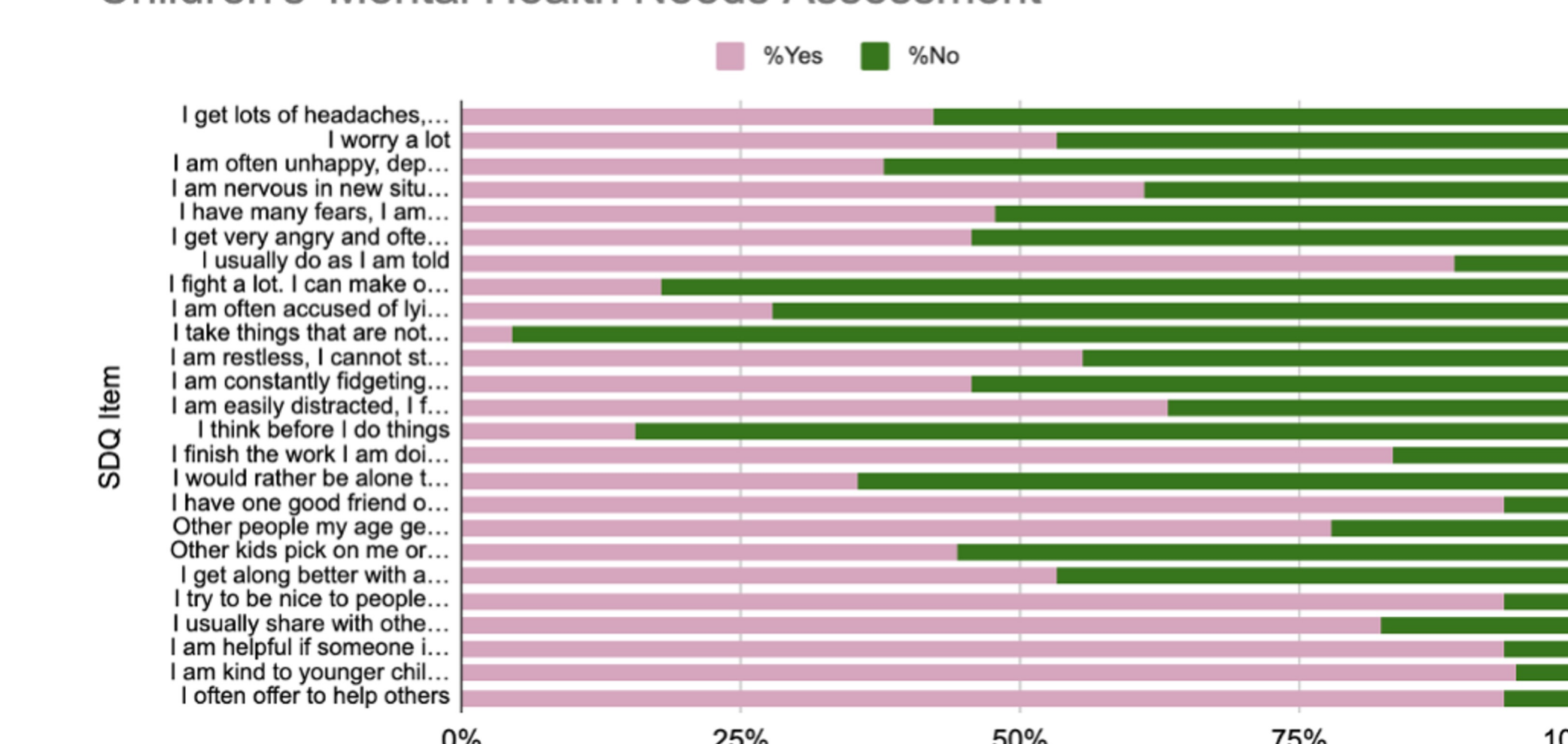
### B. Parent Completed SDQ scores for 4-17 year olds



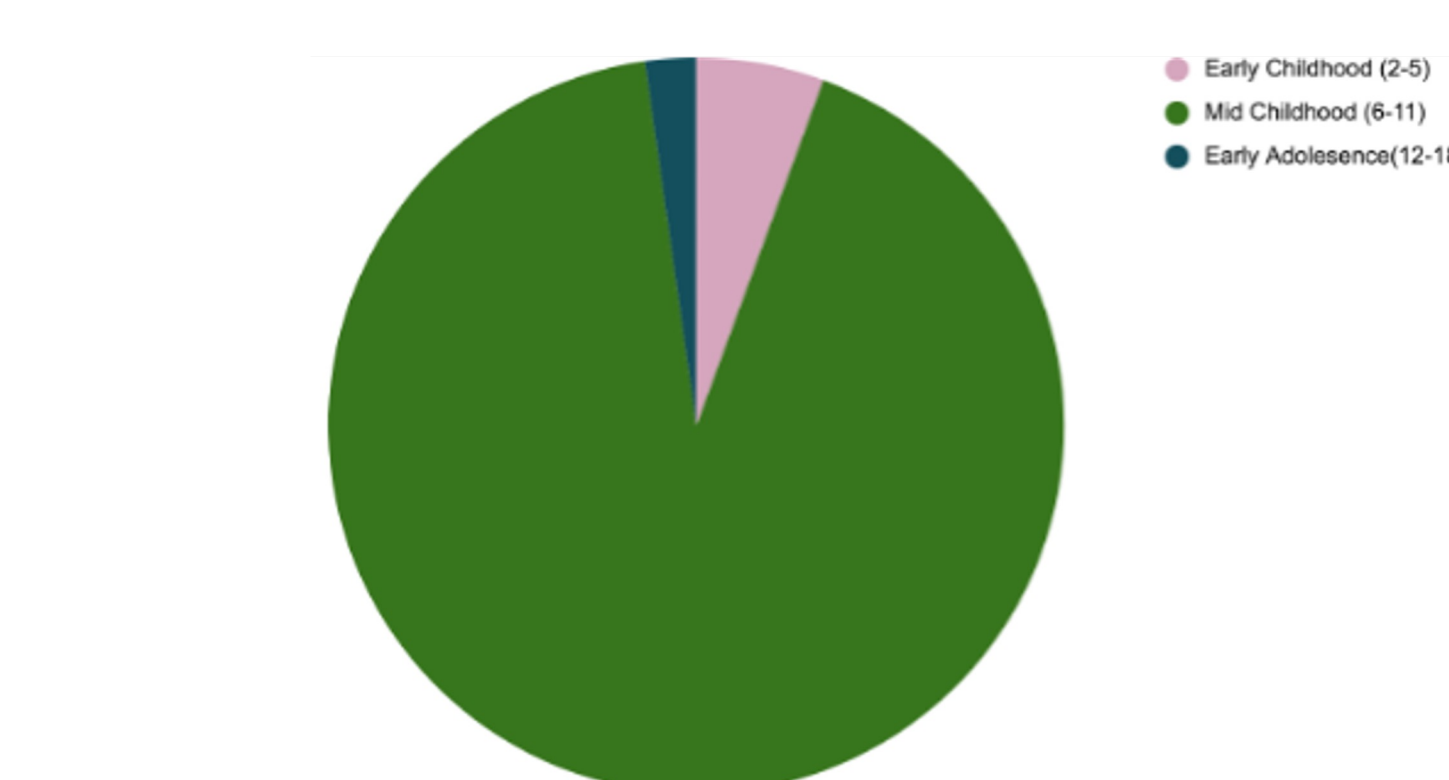
### C. Parent Completed Total Difficulties Score (%)



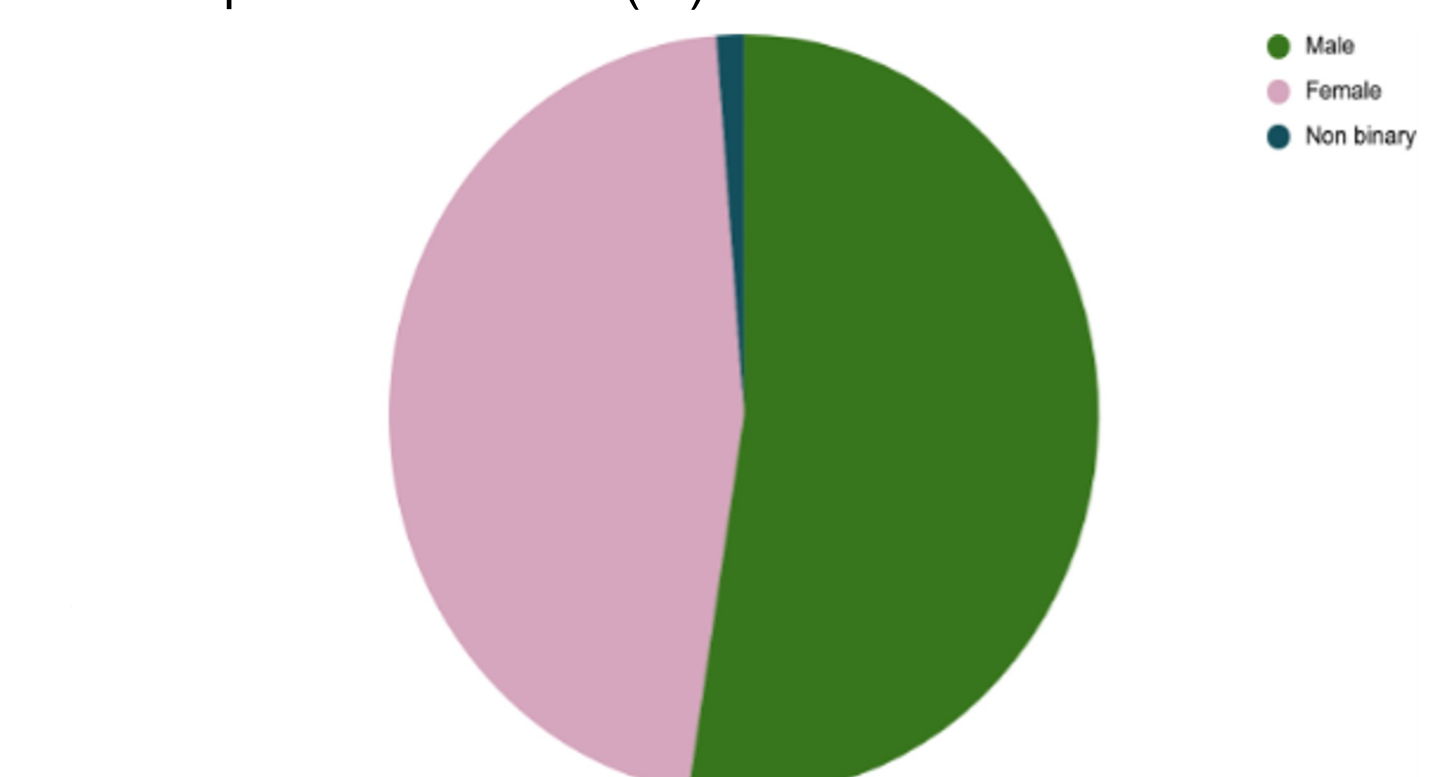
### D. Children's Mental Health Needs Assessment



### E. Respondent Age Group (%)



### F. Respondent Gender (%)



**Fig. 1: SDQ April Pilot.** (n=90 children, n=45 parents) (A): SDQ scoring guidelines to define and compare 'problem' categories. (B-C) Parent surveys indicated risk in peer relationships. (D) Binary mental health assessment shows over 50% of respondents are anxious (worried, nervous). (E-F) General respondent demographics shows evenness of gender. Majority respondents are in mid adolescence.

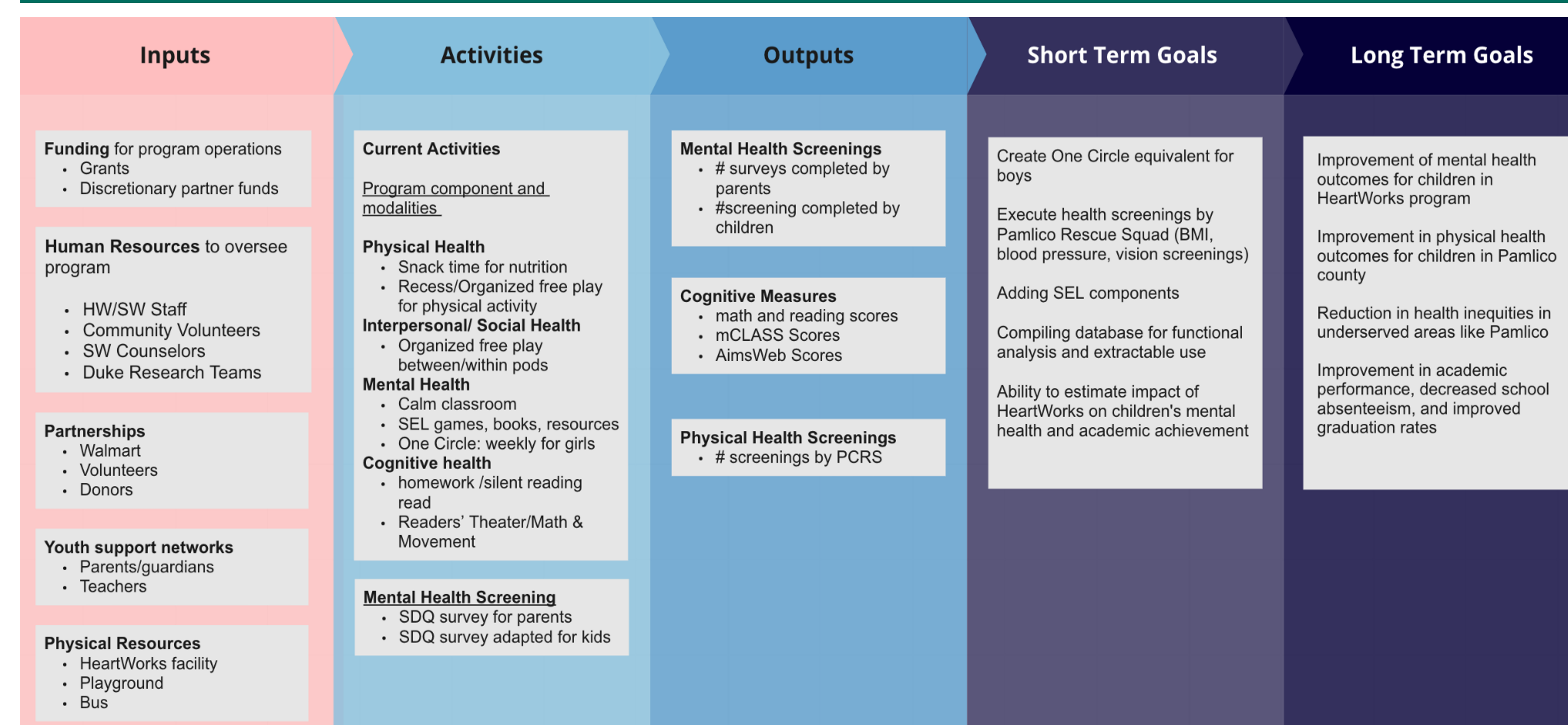
## Deliverables

1. In person visit of Pamlico County to understand built landscape and contextualize needs of the area
2. Compilation, review and documentation of HW program components used to draft M/E framework and database
3. Compiled set of grant opportunities for Heartworks so that the after-school program can continue being funded
4. Conducted literature reviews to compile mental health surveys based on validated screening tools
5. Created new database that assesses time investment into the after-school program, academic performance, mental health, and physical health information to let Heartworks evaluate the longitudinal effect of their program
6. Piloted mental health screening tool to help Heartworks screen for at-risk individuals that could be referred to the in-house counseling program and survey initial needs
7. Analyze pilot survey and report with SDQ survey improvements

## Recommendations

- A. Mental Health Screening Survey
  - a. perform follow up SDQ in May/August or start of 2023-2024 school year
  - b. Identify metrics and interventions for kids with high externalizing scores (hyperactivity, conduct etc) on SDQ
  - c. Administer SMFQ/SCAS-S to kids with high internalizing scores (e.g emotional)
  - d. Examine confidence subscales for kids with known diagnosis
- B. Compilation of Database
  - a. HW and future teams can assist with direct input of info into the database and data cleaning for analyses
- C. Implement physical health screenings
  - a. Utilize Pamlico County Rescue Squad's proximity
  - b. Consider an assembly line structure in which HW staff take weight, height and eye exams while PCRS perform other vital exams (i.e blood pressure)
- D. Considering limitations of SDQ survey ...
  - a. Operationalize binary, easier to use adaptation of survey
  - b. Disaggregate SDQ scores (i.e normal, abnormal borderline) into more meaningful metrics

## HeartWorks' Program Model



**Fig. 2: HW logic model:** showing current project activities, future directions and overall program goals