

**Providence Asthma Swim Final Report 2000/2001
Brown University**

Margaret Dann, Rachel Gershenson, Andy Lai, Marc Manseau

Introduction

Asthma Swim is a community service project under Project HEALTH. This report will serve several purposes. It will provide a concise “picture” of the Asthma Swim Program at Brown University, particularly during the 2000-2001 academic year. It will also evaluate this year’s program, offering insight to aid in identifying future improvements. Finally, it will serve as a comprehensive summary of the program to which patrons, present and future collaborators, and those implementing the program in the future can look for concrete information and guidance.

Program Description and History

Asthma is a leading cause of pediatric Emergency Room visits, hospital admissions, and school absenteeism, making it one of the most serious chronic illnesses affecting children today. The April 2001 American Lung Association Report shows that there are 12,591 cases of pediatric asthma in Rhode Island, with over 7,000 children afflicted by the illness living in the Providence County area. The adverse health affects of asthma are especially prevalent among children from low-income families, as they often lack the resources and education to effectively deal with their illness. This predicament may lead to feelings of helplessness in preventing and controlling attacks, increased school absenteeism, hindered ability to participate in athletic activities, and decreased self-confidence in social settings. Asthma Swim aims to confront the problem of pediatric asthma in the South Providence Community. Via program components that include classroom education on controlling and coping with asthma, a mentor-mentee homework session, and a swimming lesson to promote cardiovascular and respiratory fitness, Asthma Swim takes a holistic approach toward community asthma prevention.

Brown University students Amit Ayer ('00) and Andy Lai ('01) were approached in the fall of 1998 with a proposal to coordinate a Providence-based AsthmaSwim program, modeled after a highly successful counterpart at Harvard University. Recognizing that asthma disproportionately affects individuals, particularly children, living in low-income, urban areas, the two students identified the Southside Boys and Girls Club in South Providence as an ideal program location after assisted research. Asthma rates in the area are significantly higher than the state average, and lack of proper insurance coverage or other barriers often preclude patients from accessing adequate care. The Boys and Girls Club provided a classroom and pool for the program as well as affording a central locale for the families of asthmatic children to meet and work with one another.

After developing community relationships, including a long-term partnership with Hasbro Children's Hospital asthma specialist Catherine Mansell and Southside Boys and Girls Club director Lisa Cardoza, Ayer and Lai began recruiting other Brown University students, seeking those who wanted to help make an impact on pediatric asthma. Acknowledging the holistic nature of the program, they assembled a group of 10 volunteers with broad experience in lifeguard and swim instruction, tutoring, and working with children. With the guidance of Mansell and various Hasbro professionals, the students familiarized themselves with the nature of the disease and designed a five-week education and swim curriculum that met twice a week from 3:00-5:00pm. They recruited seven children ages 9-12 with mild to severe asthma by advertising the program through the club and speaking with the children's parents and pediatricians. Generous funding by Lifespan made the program entirely free for its participants, an important feature considering the economic barriers that often prevent patients from seeking proper medical care.

During the first pilot run in the spring of 1999 at the Boys and Girls Club, volunteers helped the children understand the physiology of their condition, triggers, and various preventative approaches through arts, crafts, and group activities. Kids received brand-new peak flow meters, education videos, and progress charts donated by Mansell. In the pool, instructors paired off with the kids to teach them basic swim strokes, water safety, and fun games in order to improve their cardiovascular and pulmonary capacity. Swimsuits were provided for those who did not own one. The children, several of whom had never been in a pool before, learned to be comfortable in the water and valuable basic swim skills. These lessons, in addition to relaxation breathing techniques, gave the participants tools to cope with their asthma. An underlying theme of the program was showing the kids that they can live normal, fun-filled lives just like their peers, as long as they maintained management techniques such as symptom recognition and taking daily peak flow measurements. All of them graduated from the program with increased awareness and ability in managing their condition, heightened self-confidence, and improved swimming proficiency.

The success of this pilot venture led Mansell and the Brown University volunteers to follow up with an expanded 10-week program for each of the fall of 1999 and spring of 2000 semesters. Brown AsthmaSwim thus built upon its past accomplishments and further developed its scope and size. Broad student interest, a feature article in the campus newspaper, and word-of-mouth advertising in the community helped the program increase its volunteer base to 14 and its child roster to 11. For the spring of 2000, many of these children were recruited at Mary E. Fogarty elementary school, located one block from the Southside Boys and Girls Club, by student volunteers who had initiated an ongoing rapport with the school nurse. Both programs showcased the growth of the students and children, with an active learning engagement and enhanced curricula in both the classroom and pool. Each program session was capped off with a popular trip to the Brown University campus, which provided the kids with an opportunity to see college life first-hand; and a successful graduation ceremony. While the participating children were the obvious beneficiaries of the program, the volunteer students also gained valuable experience. Not only were they more exposed to communities and families outside of the Brown campus, but they also learned critical insight in being involved in an entirely student-run organization focused on a public health issue significant to both the surrounding areas and the entire nation.

Rising interest with Brown University students, at Hasbro Children's Hospital, and in the South Providence community prompted the student coordinators to further develop AsthmaSwim's program. The academic year 2000-01 witnessed a successful 16-week, continuous program that involved nine children with asthma. Evaluation of the year constitutes the basis of this report.

Program Goals for this Year

This year in Asthma Swim, we planned to accomplish the following:

- Provide a fun, rewarding, and educational program for between ten and fifteen asthmatic children from South Providence.
- Provide a holistic approach to asthma management, including a comprehensive, accurate, and age/culturally-appropriate classroom curriculum; regular, vigorous physical activity and swimming instruction; a mentor-mentee relationship between participants and volunteers; academic assistance; and family support.
- Provide a unique, engaging, and educational community service experience for all participating volunteers.
- Provide a solid basis for a sustainable health intervention program in South Providence.
- Accomplish certain well-defined program improvements, as indicated in the following section of this report.

Improvements Made This Year

During the summer of 2000, we hoped to make many improvements to the Asthma Swim program. We worked throughout the summer making this possible, with frequent co-coordinator and mentor meetings, a trip to Boston's program, and intensive research. We set out to make the following improvements:

- **Improved Classroom Curriculum:** We worked to create a more engaging, structured, and thorough classroom curriculum. We also expanded Asthma Swim to a full-year program. A copy of the curriculum is available by contacting Rachel Gershenson '02 (Rachel_Gershenson@brown.edu) or Marc Manseau '02 (Marc_Manseau@brown.edu).
- **Improved Swim Curriculum:** We worked to create a more structured, fun, and physically rigorous swimming curriculum. We added swim testing, a regular game period, and skill lists. Sarah Courtright '01 was mainly responsible for this component of program improvements. For more information about the swimming curriculum, contact Maggie Dann '03 (Margaret_Dann@brown.edu).
- **Improved Behavioral Management:** We planned to curb behavioral problems early in the program. We thought extensively about the best way in which to present and administer classroom rules, met with Director of the Southside Boys' and Girls' Club, Lisa Cardoza, about the matter, and implemented a system of rewards for consistent good behavior, attendance, and preparation.
- **Improved Relations with the Community:** We met extensively over the summer with staff members of the BG Club, in order to establish a more positive and intimate working

relationship in the South Providence Community. During the second semester of the program, we also made an effort to provide volunteers with community awareness by attending a talent show at the BG Club. The BG Club gave us our own permanent room (to be shared by Project HEALTH). We painted, furnished, and decorated it over the summer.

- Improved Volunteer Training and Engagement: It was our goal this year to run the program with better-prepared and more engaged volunteers. Using Boston's materials as a template, we put together an extensive volunteer training packet. For a copy of this packet, contact Marc Manseau '02 (Marc_Manseau@brown.edu). We also held a volunteer orientation and training retreat before the beginning of the program. During the year, volunteers were responsible for one program participant, and were asked to call his or her parent(s) approximately once per week. In addition, volunteers were responsible for planning various activities (i.e. weekend fieldtrips), and were required to prepare for and run one lesson each semester. Finally, the volunteers wrote our entire classroom curriculum for second semester.
- Improved Parent Involvement: As mentioned above, volunteers were responsible for building a regular relationship with parents. We also held one "Parent Day" per semester.
- Improved Program Evaluation: This report and its elements are a direct result of this component of improvements. We planned to keep more regular and accurate peak flow records (see Appendix for a copy of our Peak Flow recording method). We also planned a number of other evaluation tools, which are enumerated in the report.

Overall, we were highly successful in implementing the above improvements. However, there still exists ample room for improvement. Most importantly, we must further improve and structure the swimming component of the program, improve behavioral management in the classroom, improve safety preparation for our volunteers, and improve parental involvement.

Program Specifics for 2000/2001

First Semester:

Participants:

We began with twelve participants. However, soon into the program, three dropped out. The baseline characteristics of the remaining nine are as follows:

Sex: 6 Boys, 3 Girls

Age: 1 8yo., 1 9yo., 1 12yo., 6 10&11yo.

All but one participant attended on both program days each week.

Asthma cases ranged from mild to severe.

Volunteers:

The following is the list of Brown undergraduate volunteers and program coordinators:

Volunteers:

Katie Artis '02
Maggie Dann '03
Sidra Durst '03
Rachel Gershenson '02 (Curriculum Coordinator)
Fasih Hameed '01 (Photography)
Caroline Jackson '04
Romita Mukerjee '02
Calvin Oung '02
Hilary Smith '01

Program Coordinators:

Andy Lai '01
Sarah Courtright '01 (Swim Coordinator)
Marc Manseau '02

All but two volunteers attended twice per week.

The Program:

The program ran from October 1, 2000 to December 1, 2000. On most weeks, the program ran twice, on Wednesday and Friday afternoon, from 3:30 to 5:00pm. In total, the first semester program consisted of sixteen sessions. In addition, we took one weekend bowling trip.

The volunteers participated in one reflection session/meeting per week. (See Appendix for First Semester Program Schedule.)

Second Semester:

Participants:

We lost one participant from first semester. We gained two participants. The baseline characteristics of the ten are as follows:

Sex: 6 Boys, 4 Girls

Age: 2 8yo., 1 9yo., 7 10&11yo.

All but one participant attended on both program days each week.

Asthma cases ranged from mild to severe.

Volunteers:

The following is the list of Brown undergraduate volunteers and program coordinators:

Volunteers:

Maggie Dann '03
Matthew Dykhuizen '03
Rachel Gershenson '02 (Curriculum Coordinator)

Fasih Hameed '01 (Photography)
Caroline Jackson '04
Katherine Loranger '03
Romi Mukerjee '02
Calvin Oung '02
Hilary Smith '01
Susan Warren '03
Meggie Woods '0

Program Coordinators:
Andy Lai '01
Katie Artis '02 (Swim Coordinator)
Marc Manseau '02

All but three volunteers attended twice per week.

The Program:

The program ran from February 7, 2001 to April 13, 2001. On most weeks, the program ran twice, on Wednesday and Friday afternoon, from 3:30 to 5:00pm. In total, the first semester program consisted of sixteen sessions. In addition, we took one weekend trip to the Children's Museum.

The volunteers participated in one reflection session/meeting per week. (See Appendix for First Semester Program Schedule.)

Evaluation:

I. Outcome:

The quantitative and qualitative measures and descriptions that follow provide insight into the impact that Asthma Swim had on participants and families. We hope that such measures will help us to determine what worked in our program, and where improvements are most needed. While we realize that we lack the participant numbers, frequency of measurement, and study design to constitute scientifically valid results, the evaluation that follows will nonetheless serve our purposes of program development well.

a) Quantitative:

i) Asthma Knowledge Questionnaires:

An asthma knowledge questionnaire entitled, "How Much do You Know About Asthma?" was filled out by each Asthma Swim child at least once during their participation in the program. The 19-item questionnaire consisted of 2 fill-in-the-blank questions regarding triggers and symptoms, and 17 true/false questions about physiology, prevention, treatment, and other basic asthma facts.

Seven children completed the questionnaire both at the beginning of their participation in the program and at the end. Using data from these participants, we calculated that they answered an average of 4.143 more questions correctly when they answered the questionnaire a second time upon completion of the program. Although the sample is small, we feel that these results indicate an encouraging improvement in the asthma knowledge of our students after being a part of Asthma Swim. We also calculated improvement on a question-by-question basis, which helps to identify which topics still need to be clarified for the children. We hope that considering these results when making any adjustments to the curriculum will result in an even greater improvement in knowledge for next year's participants.

For exact data or a copy of the questionnaire, please contact Rachel Gershenson '02 (Rachel_Gershenson@brown.edu).

ii) Quality of Life Questions:

According to an article that our mentor, Cathy Mansell, referred us to (Mitchell, et al. "Measuring morbidity from asthma in children." New Zealand Medical Journal, 24 January 1997), we used three questions to assess the quality of life within families participating in our program. We included the questions on the child applications to begin the program, and followed up with the same questions at the program's completion. The three questions are as follows:

1. *How often does asthma stop your child's activities?* (Circle one)

1	2	3	4	5
Never	Rarely	Sometimes	Often	Very Often

2. *How often does asthma stop your family's activities?* (Circle one)

1	2	3	4	5
Never	Rarely	Sometimes	Often	Very Often

3. *How often are you frightened due to your child's asthma?* (Circle one)

1	2	3	4	5
Never	Rarely	Sometimes	Often	Very Often

We have data for seven families from the beginning and the end of the program. In each case both times, the mother responded to the three questions.

Each question showed an average improvement of approximately 0.7 across all respondent families.

Each family's overall "QOL score" was calculated by taking an average of their answers to all three questions. All respondent families showed an improvement.

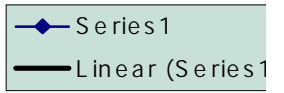
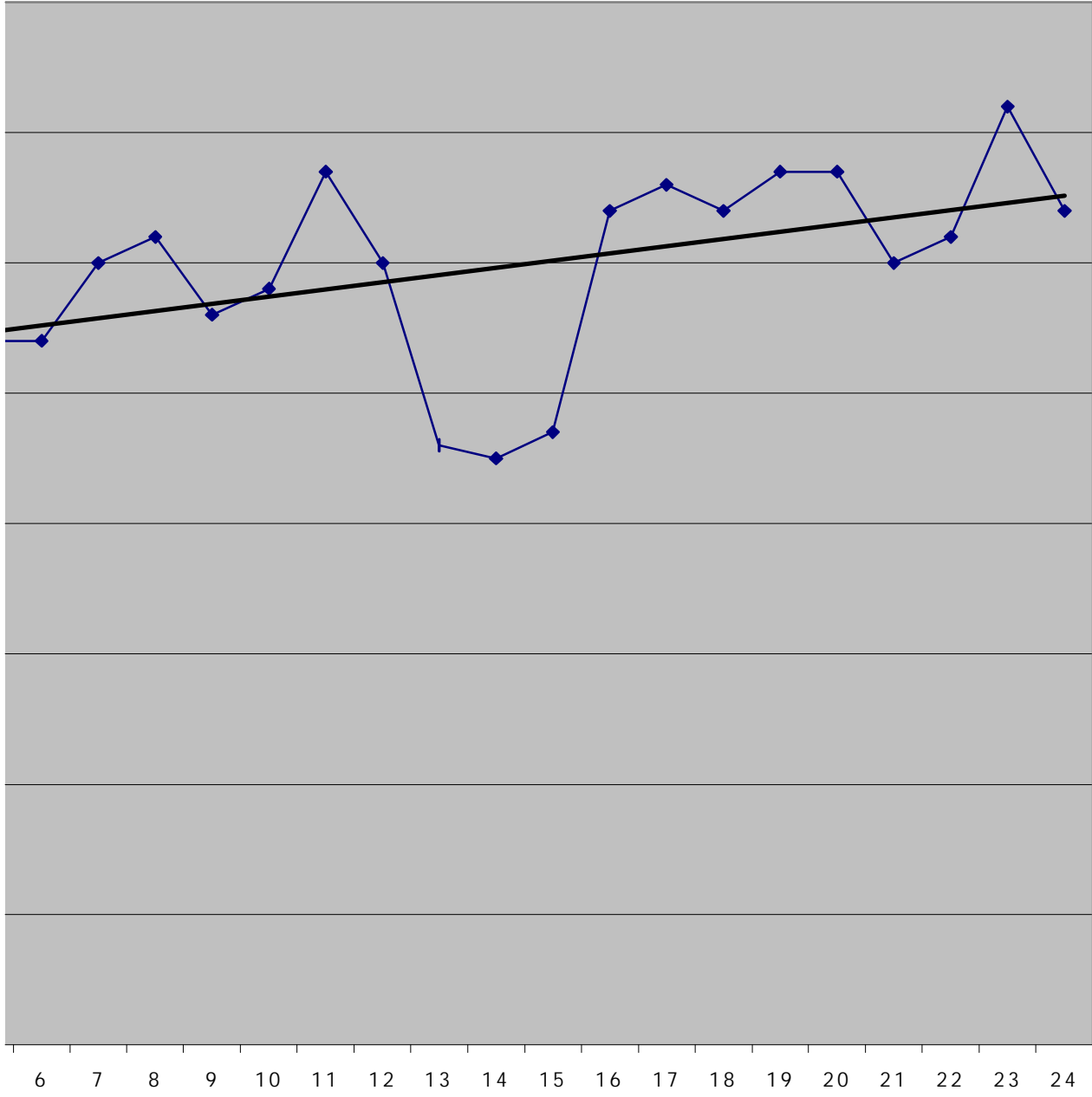
The consistent improvement both across individual questions and within individual families indicates that the respondent families were more comfortable with and less hindered by their child's asthma after the Asthma Swim program. It is expected that greater parental

involvement in the future will result in further improvements in this measure. For the exact data, please contact Marc Manseau '02 (Marc_Manseau@brown.edu).

iii) Peak Flow Values:

Volunteers supervised attending participants in taking regular peak flow values at the beginning of each program day. The recorded peak flow values for all eleven participants were plotted for the entire time of their participation in the program.

When trend lines were fitted to the data plots, ***the data for nine out of eleven participants produced trend lines with positive slopes. This suggests that as the program proceeded, peak flow values for participants showed general improvements. Some showed significant improvement, as in the plot on the following page:***



Out of the two plots that do not produce a trend line with a positive slope, one is from the participant that only attended once per week, and the other is from a participant that began only during the second semester of the program.

As will be discussed below, both participant attendance and peak flow measurement were at times sporadic. In addition, a measurement frequency of twice per week is not enough to produce scientifically valid data. Finally, Asthma Swim had a low number of participants and no control group. Therefore, it is impossible to attribute any general improvements in peak flow values directly to the program. However, the improvement noted is nonetheless both worth noting and encouraging. It is possible that the increased asthma knowledge and cardiovascular exercise provided by the program played some hand in improving values. It is also possible that participants simply became more adept at taking their own measurements over the course of the program, a result that we would deem successful.

Overall, the main purpose of the peak flow measurements was to teach children to monitor their own asthma. In addition to recording peak flow values, children had to record how they were feeling, asthma episodes that they had experienced, and hospital visits. Regardless of the trends in peak flow values, this exercise in self-monitoring was a valuable component of the Asthma Swim program.

b) Qualitative Impact:

Volunteer Testimonials:

Ellika Bartlett '03, Spring 2000:

Volunteering with AsthmaSwim has been the highlight of my semester. I was unsure after the first day whether the kids would take us seriously or care about learning what we wanted to teach them. But by the second week I was sure we were making an impact. The kids really benefited from the one on one attention. Whether we were helping them with their homework or explaining the anatomy of the respiratory system, the kids were engaged and excited. The excitement was also evident in the pool. They loved to be in the water, and even if the teaching part only lasted 10 minutes, at least they were getting exercise.

As the semester progressed some kids began to lose interest as we ran short on new information. The group activities and asthma games seemed to be a good solution to this. Also due to problems with the facilities, we could not swim every day, which significantly lowered moral--among kids and volunteers alike. I think if the swimming was consistent interest would return among many of the kids.

Each day was a difficult and draining process, but I always went home felling glad that I was there. Through this program I was able to form connections with kids that I would never have come in contact with before. These connections help me to keep life on college hill in perspective, and feel like I am giving something back to the community I will be living in for four years.

Many of the kids we worked with came from poor families with little structure or discipline in their home lives. To see them take control of their lives and get excited about what they were learning was incredible. There were definitely bumps along the way, but when I step back and look at the semester as a whole and think about how far all of these kids have come and how much I have learned I can't wait to do it again.

Calvin Oung '02, Spring 2000:

“I don’t understand why other kids don’t come all the time. I have fun each time!”

-Ventura Santiago

Need I say more? This semester was my debut in the Asthma Swim Program and surprisingly, it was more enriching than I expected. With a few glitches in the program which were only minuscule, both the counselors and kids had fun. Firstly, things that worked in the program. The classroom time appeared to be worthwhile for the kids because they accomplished some of their homework each day. In addition, our asthma lessons proved to be a riot for the kids, although their competitive spirit sometimes overshadowed the purpose of the games which was to teach the kids about their asthma. Some kids grasped more asthma info than others did but this was out of our control. The daily schedule also suited the program well especially ending with snack time. Pool time is definitely the highlight of the kids’ day.

However, I feel that we should develop a more structured program for the kids so they improve their swimming skills on a regular basis rather than teaching them random swim skills. If the kids could get a picture of what they had to learn in advance, I believe the swim aspect of the program would gain some stability and in turn help their asthma. Referring back to Ventura’s quote, to eliminate the weekly absences from pool time (i.e. Veronica), perhaps a point system which covers the length of the course would provide as a motivation for the kids to come to swim. The kids can use their points to “purchase” certain prizes that they can obtain at the end of the program. Hence, the fewer absences a kid accumulates the more cool stuff they can get. These prizes need not be too pricey; it is the principle of rewarding them that matters. Moreover, to remedy the poor pool condition, which we encounter frequently, we should designate someone as the “pool keeper”. Their job would entail monitoring the pool temperature, chlorine levels, etc. and make sure they are suitable for swimming. We should keep the weekly reflection sessions on Sundays. They are very helpful in planning out the week and also dealing with issues raised from the previous week. All in all, the program is headed in the right direction especially if we address the problems we had this year

Katie Loranger '03, Spring 2001:

Asthma Swim is one of the most motivated, organized, and dedicated programs I have been involved in at Brown. As a new volunteer this semester, I have found the program to be both challenging and rewarding. Although it is a large time commitment, it has been worth all of the hours that I have put into it. Among both the volunteers and children, there is a tremendous amount of enthusiasm which is both inspirational and contagious. The innumerable rewarding aspects of Asthma Swim come in many forms that are often awe-inspiring. Classes begin with the smiles and energy that the children exude when greeting them at the start of the afternoon’s activities. At the end of every day’s program, you gain the satisfaction that the kids are leaving with more knowledge about their asthma and a good cardiovascular workout from being in the pool. The continuity of having the same instructor each week allows a certain unique relationship that is treasured by both the child and the instructor. This encourages a strong sense of trust and friendship between the pair as well as allowing the volunteer to become aware of the child’s abilities and improvement.

I truly appreciate the efforts that go into making Asthma Swim organized and structured. Every Sunday night for one hour the volunteers meet for a reflection session where we discuss the events of the previous week. Discussing what went well and what needs to be improved in the program is a helpful way to ensure that it runs smoothly and efficiently. Also, hearing from other volunteers about how to deal with certain children allows us to be attentive to the children's needs and feelings. Even though Asthma Swim is based primarily at the South Side Boys and Girls Club, the volunteers and kids enjoy activities outside the program as well, such as a trip to the Children's Museum or to Brown University, to name a couple. This promotes further bonding between volunteers and children and even between the volunteers. Overall, the Asthma Swim program has been a huge success and I am extremely excited to be a part of it.

Katie Artis '02, Spring 2001:

Flashback!

Sometimes I forget what it was like the very first time I set foot in the door of the Boys and Girls Club as a new Asthma Swim volunteer. Let's refresh. February 2000, my first of many car rides to the B&G Club. I was eager, excited to swim, and despite my shyness and natural quietness, just pretty psyched to give this cool sounding program a shot.

Arrive at B&G Club, jump out of the car, grab swim gear and follow the rest of the group. So far so good. Kids are playing basketball in the distance, others are milling about the entrance for no particular reason. The doors open and... whoa. Total chaos. More kids playing in the gym, kids on the benches, kids on the tables, kids sitting on the stairwell, kids running through the hallway, kids asking me for snack money, kids staring with big wondering eyes, "Who are these big, smiling, white people, and what are they doing here?" Simultaneously my own pondering begins, "Do I belong here? Will I be able to relate? Why do I feel so intimidated?"

We file upstairs to the classroom, I am introduced and paired off with two kids. "Hi, nice to meet you. Hmm... Quiet? That's okay, I understand, I'm quiet too. Hey what's that you're drawing? That's the coolest monster I've seen all day. Is it for school? Yes? No? So... today we're going to learn about cardiovascular fitness! What? You don't want to learn? Why not? Sounds exciting to me. C'mon, it'll be fun. Really. Wait! Hey, don't run around the classroom! We've got really cool stuff to learn about and then get to go swimming! Hello?"

My first day was a little daunting. I didn't feel like I connected with my kids, was overwhelmed by the whole B&G Club atmosphere and was frustrated at how disorganized and out of control everything seemed. There were so many issues that need resolving: behavior, pool temperature, attendance, classroom discipline.. I had nothing but admiration for the coordinators; but would we ever really make this work?

I like replaying this flashback because it reminds me how much Asthma Swim and its volunteers have evolved in the one year I've been a part of the program. I would say that the Boys and Girls Club is still the same bustling place and that many of the issues we faced a year ago have not disappeared. On the other hand the positive difference in volunteer attitudes and program improvement strategies is so very clear. The energy level in our new classroom is much higher and the kids much more focused. Every volunteer is responsible for some component of the program, be it snack time, creating the day's lesson plan, or calling a kid's parents. With everyone's commitment a little deeper, we've been able to get beyond crippling logistical

problems and set more important goals like improving our relations with the Boys and Girls Club and even the South Side community at large. Thanks to all who have helped Asthma Swim grow!

II. Process Evaluation:

This section of evaluation will delineate how well the program ran as it was supposed to, as well as what actions we took during the program in attempt to make improvements. Such a reflection is probably most important to making improvements in the future of Asthma Swim.

a) Attendance Records and Peak Flow Consistency:

First Semester:

For the nine participants in the program during the first semester, there were 13 total absences. Six of these absences were due to asthma-related problems. A significant portion of the remaining absences was due to transportation problems.

For the nine program participants, peak flow values were not recorded a total of 6 times when the participant was present.

These results indicate that to improve attendance, we should attempt to secure a reliable source of transportation for participants. We should also be more diligent in recording peak flow values consistently for all attending participants.

Second Semester:

For the ten participants in the program during the second semester, there were 36 total absences. At least ten of these absences were due to asthma-related problems. A majority of the remaining absences were due to increased transportation problems. Finally, a significant portion of these absences was due to the fact that we scheduled three program days on public school holidays, which we found drastically decreases attendance.

For the ten program participants, peak flow values were not recorded a total of 11 times when the participant was present.

These results indicate that to improve attendance, we should attempt to secure a reliable source of transportation for participants. In addition, we should avoid scheduling program sessions on public school holidays. We should also be more diligent in recording peak flow values consistently for all attending participants.

b) Swimming Curriculum:

With a swimming curriculum designed beneath the experienced hands of Sarah Courtright, '01, the swimming portion of AsthmaSwim began in a solid place for the Fall 2000 semester, and grew over the course of the year. There are four components to the swim curriculum that are worth reviewing; they include volunteer training, the week-to-week curriculum, lesson format, and improvements to the program.

Volunteer Training.

Volunteer training is a vital part of the swimming program. To welcome and acclimate both new and old volunteers, pool orientation was held at the start of the program. This orientation is crucial for establishing a cohesiveness among volunteers, both socially and technically. It allows volunteers to get to know each other. It helps those unsure of their teaching skills to brush up and learn from those who may have more experience as swim instructors. Because teaching techniques and learning styles are varied, it is useful for volunteers to gather and share different methods that are effective for them in swimming education. People learn new tricks to teach old skills or alternate approaches from which to draw when traditional ones are unsuccessful.

The swimming orientation serves as in-service training and provides volunteers with a chance to try out both classic and developing games. By having volunteers play the games, it is possible to see if the games are fun and feasible. Additionally, this activity requires that the volunteers work together, and even enjoy themselves! Orientation also sets aside a time to establish program goals for the swimming component. It lends structure and direction to the swimming program.

Week-to-Week Curriculum

Asthma Swim's swimming curriculum remains fairly steady from week-to-week. Its backbone is rooted in the Red Cross swimming program, which covers a broad base of swimming knowledge and basic skills required of any capable swimmer. The strengths of the Red Cross curriculum lie in the fact that it is a universal, nationally recognized standard. It is divided into five swimming skill levels, thus catering to children with different abilities. It allows for a mechanism by which to measure progress and set goals, for both the children and the volunteers. This was particularly helpful during the first semester and facilitated a prompt start to the program.

After following Red Cross guidelines for the Fall 2000 semester, some weaknesses were discovered. Sometimes the requirements to pass each level are too challenging, given the limited nature of the swim lessons. The lessons are short and often unfocused due to wandering attention spans, thus retarding constant forward progress. It is not uncommon for participants to be disinterested in learning some of the more formal techniques, such as sculling. Many of the Red Cross skills are outdated and often volunteers themselves do not know some of the skills that they are supposed to teach. An example of this is the elementary backstroke. It is difficult to teach this if one does not know what it is to begin with. This is a reflection of the fact that few of the volunteers have been officially trained as Water Safety Instructors. The curriculum best suited to Asthma Swim is one that incorporates Red Cross suggestions with those of volunteers.

Lesson Format

Lessons are administered biweekly and comprise the first segment of each meeting time. Ideally, the children swim for thirty minutes; for fifteen minutes the children are engaged in a individual lesson, while the remaining fifteen are spent playing a game as an entire group. Due to fluctuating pool temperatures, sickness, behavioral problems, and forgotten bathing suits, sometimes the lesson falls short of the allotted thirty minutes.

Although fifteen minutes is but a short amount of time in which to teach a formal swim lesson, the thirty-minute swim structure works for the program. The lessons are long enough to be effective, but short enough to capture wandering attention spans and keep the kids interested. Ingrained within the format is variety and flexibility. Children and volunteers work either one-

on-one or in small groups. Volunteers are encouraged to work with the same child each session. This is to maintain consistency, establish concrete, comfortable, relationships between individual children and volunteers, and to facilitate steady progress. However, varying schedules, absenteeism, and comfort levels on both the part of the volunteers and participants make flexibility a valuable and appreciated component of the swim lessons.

The game is a much-anticipated event each swim session. Its design is multifold. Fun and challenging, each day the game is a cardiovascular activity in which everyone, no matter his or her swim level, or age, can participate. The hope is that the children learn to work together, with the volunteers, all while getting some exercise and laughs.

Improvements

Some improvements were made upon the swim program during the second semester in an effort to strengthen and refresh an already strong swim system. Stretching has been added to the beginning of each swim session. This allows everyone to gather together before entering the pool and teaches the children that it is important to warm up before exercising. It also gives the children an opportunity to act as leaders; they are encouraged to lead stretching. Next year, the pool time may have to be extended to accommodate for stretching time.

An AsthmaSwim Olympic Challenge was designed and added to the program as well. It includes a list of skills that are more tailored and relevant to the kids than are the skills taught by Red Cross. The checklist masks some of the classic Red Cross skills beneath "fun" guises, such as conducting underwater tea parties to practice full-head submersion. The Olympic Challenge is still nascent and can be developed and organized further next year.

While the swimming program was successful this year, there is room for improvement in the upcoming season. Volunteers should strive to minimize the time that the children sit out of the pool and think of ways to keep the kids warm and engaged while swimming. More challenging cardiovascular workouts would be useful in promoting the program goal to strengthen participants' fitness levels. Efficient record keeping would add structure to the program and aid in monitoring the children's progress. Week-to-week lesson plans with units about water safety and lifesaving were implemented by Courtright, '01 and would benefit from further attention. Logistically, a first aid kit is needed on the deck and Asthma Swim should ensure that at least some of its volunteers are WSI and Lifesaving certified to promote poolside safety.

c) ***Behavioral Management:***

The stresses of childhood are taxing. Many of the children who arrive at Asthma Swim each Wednesday and Friday are products of hard-working parents, who may not have the time or resources to give them sufficient attention at home. The kids come to Asthma Swim after a long day of school where they may be struggling academically and socially beneath over-trying teachers. Not having eaten anything since lunch, and full of "school's out" energy, some of the kids, often the same individuals, are prone to acting out, in a manifestation of frustration and in search of attention. Their poor behavior is contagious and is detrimental to the learning environment, both in and out of the pool. Thus, it is important for volunteers to know how to effectively manage behavioral problems as they arise, so that a safe and comfortable classroom is maintained for both children and volunteers. Behavior management proved to be a challenging component of Asthma Swim this past year.

Volunteers occupy the difficult position of mentor; they are not quite friends, yet they are not typical teachers either. Children recognize this tentative position and test their boundaries, usually through refusing to participate in activities, being negative, not listening, not cooperating, and teasing other children. Volunteers must command respect and be in control of the classroom, all while being kind and caring. This is a major challenge faced by Asthma Swim volunteers.

Asthma Swim volunteers have found some techniques to be useful in managing behavior. At the beginning of each semester it is helpful to brainstorm, with the kids, a list of guidelines for acceptable behavior in the classroom, as well as in the pool. Additionally, it is important to delineate the consequences of poor behavior. These guides are posted prominently in the classroom and are available for quick reference, as needed. Brainstorming positive behavior expects the children to take responsibility for and think about their actions.

Enforcing classroom rules and disciplining misbehavior was difficult at times this year. Our visit with Susan Pensa-Clyve, child behavior specialist, proved to be very helpful. She debriefed volunteers on methods, which work in controlling unacceptable behavior, such as ignoring mild disruptive behavior, and praising positive behavior. She answered volunteers' questions on specific cases, which was useful as well. A meeting with her is recommended for the beginning of each semester, if at all possible.

d) Professional Contributions:

Our mentor, Cathy Mansell, introduced Asthma Swim to two professional advisors: Dr. Robert Klein, an allergist, and Thomas Lawrence from the Emergency Department of Rhode Island Hospital. Such professional input greatly augments the helpful advice that we already receive from Cathy on a regular basis.

Dr. Klein observed our classroom curriculum component on one program day, and read over our entire curriculum. He approved of our entire classroom component, which was quite reassuring. In addition, he will help us to further develop and improve our classroom curriculum, specifically the portion that deals with medication.

Tom Lawrence observed our swimming component during one program day, specifically with safety issues in mind. He recommended that we conduct comprehensive and continual safety training sessions with our volunteers each semester. In addition, he donated a new spinal stabilization board and will donate two new first aid kits.

e) Volunteer Evaluations:

We believe that volunteer feedback is a crucial factor in evaluating Asthma Swim's success. As such, at the end of the year we asked each volunteer to fill out a brief questionnaire designed by Project HEALTH. Each of the following questions was answered on a 1-10 scale, and space was provided for comments:

1. You were well-prepared and trained before beginning your program.
2. Your input and feedback is asked for regularly and you feel comfortable expressing your ideas.
3. When you express ideas, you feel that action is taken on them.
4. You feel that you are having a real impact on the population with whom your program works.

5. Your program has a clear definition of success.
6. You understand the neighborhood in which your program runs.
7. You have a relationship with at least one family outside of your program's regular hours.

In general, the first five questions received very high scores and positive comments. Lower scores were given to the last two questions, indicating a need to be more involved in and better educated about the South Providence community, as will be mentioned below.

Conclusions and Future Directions

We hope that this report has demonstrated some of the great strides Brown Asthma Swim took in the past year. The program is currently coordinated by Marc Manseau ('02), Rachel Gershenson ('02), and Maggie Dann ('03). In the 2001-2002 program year, we will continue working on our original goals while focusing intensely on the following objectives:

- Re-evaluated and enhanced curriculum. The results of the Asthma Knowledge questionnaire, anticipated input by Dr. Robert Klein, and simple classroom experience should help to point us in the right direction.
- Increasingly structured pool time and improved evaluation techniques.
- Increased parental involvement. As Parent Days often had low turnout due to conflicts with work, we hope that instituting evening meetings will result in better attendance and foster greater communication between volunteers and parents.
- Greater inter-organization collaboration within Project HEALTH.
- More trips with the children outside of program time to enhance relationships and have fun.
- Greater involvement in the community and increased opportunities for volunteers to learn about Southside Providence.

Acknowledgements:

Asthma Swim would like to thank certain individuals and organizations for the support that they have provided to our program. Without such generosity of time and resources, Asthma Swim could not continue to contribute to the community of South Providence.

First, we would like to thank our mentor, Cathy Mansell, and her husband, Dr. Tony Mansell. Without their outstanding support, enthusiasm, and dedication, Asthma Swim would be nothing. We owe them so much. We would also like to thank John Morgan of Lifespan, Beth McQuaid, Susan Pensa-Clyve, Dr. Robert Klein, Kris Hermanns of Brown University's Swearer Center for Public Service, and Tom Lawrence. Their professional advice and personal support has been so helpful in planning and the everyday running of our program.

Next, we would like to thank Lisa, Kyle, Warren, and the rest of the staff at the South Side Boys and Girls Club. You have welcomed us into your community, provided us with the space and resources to operate, and offered unrelenting support to our program. Asthma Swim is lucky to be a part of such a rich and caring community center. We would also like to thank school nurses Nora Thurber at Mary E. Fogarty Elementary and Jill Benum at B. Jae Clanton Elementary, as well as Katie King of the Neighborhood Health Plan, and Sister Anne Keefe at St. Michael's Church. You have all been vital community contacts.

We would also like to express our gratitude for the help and support that Ahou Meydani '01, Atiya Ali '01, and Afia Asamoia (please check spelling) have offered to our program. We are certainly proud to be a part of Project HEALH, and are excited by the future prospects of the organization at Brown and nationally.

We would like to extend a very special thanks to the families of our program participants. Not only did they make weekly sacrifices to ensure that their children attended or program, but they worked and continue to work extremely hard to provide happy and healthy lives for their children. We cannot thank them enough for striving to excel at this amazing task.

Finally, we would like to thank all of our wonderful volunteers. Certainly, you define Asthma Swim. The program is only what you make of it, and you have done an outstanding job this year. The children were lucky this year to have such dedicated and caring mentors.

Appendix:

AsthmaSwim Program Schedule - Fall 2000

Week	Day	Date	Activities
		Tu, Sept 12	Parent Information Session 6:00pm
1	1	W, Oct 4	Introduction, Rules, and Review
	2	F, Oct 6	Respiratory & Anatomy Systems
2	3	W, Oct 11	Swimming and Your Asthma
	4	F, Oct 13	Triggers
3	5	W, Oct 18	Skits
	6	F, Oct 20	Kids Developing Lesson Plans
4	7	W, Oct 25	First Parent's Day! - kids' presentations
	8	F, Oct 27	Buoyancy
5	9	W, Nov 1	Model Lungs
	10	F, Nov 3	Asthma and the Breath Test
6	11	W, Nov 8	Exercise, Smoking & the Surgeon General
	12	F, Nov 10	Nutrition
7	13	W, Nov 15	You can do it!
	14	F, Nov 17	Asthma Jeopardy
8	15	W, Nov 29	Classroom games/extra swimming time

16 F, Dec 1 Trip To Brown University!

AsthmaSwim Program Schedule - Spring 2001

Week	Day	Date	Activities
1	1	W, Feb 7	Asthma Attacks
	2	F, Feb 9	Allergies and Asthma
2	3	W, Feb 14	Asthma Scavenger Hunt
			Feb 17-20 LONG WEEKEND
	4	W, Feb 21	Athletic Day
3	5	F, Feb 23	Coping and Dealing with stress
	6	W, Feb 28	Planning Peak Flows/Traffic Lights
4	7	F, Mar 2	Medications
	8	W, Mar 7	Asthma Jeopardy!
5	9	F, Mar 9	Asthma Action Plan
	10	W, Mar 14	Mural-Making
6	11	F, Mar 16	Mural-Making II
	12	W, Mar 21	Healthy Snack Day
			March 24-April 1 SPRING BREAK
7	13	W, Apr 4	Making and Asthma Board Game
	14	F, Apr 6	Making an Asthma Board Game II

8

15

W, Apr 11

Making and Asthma Board Game III

16

F, Apr 13

Trip to Brown University and Graduation!



How Am I Doing Today?

** WEDNESDAY **

Date: _____

Today my asthma feels: _____

Today's Peak Flows: _____
(Circle your best one!)

** FRIDAY **

Date: _____

Today my asthma feels: _____

Today's Peak Flows: _____
(Circle your best one!)

I have had _____ asthma attacks this week.

I went to the hospital for asthma _____ times this week.

I woke up at night _____ times this week because of my asthma.

I have had to stay inside this week because playing outside makes it hard for me to breathe.

Yes _____ No _____



Thanks! Have a great day!

