A RESEARCH AGENDA FOR SCHOOLS IN WESTERN PENNSYLVANIA:
A POLICY AND PRACTICE WHITE PAPER
Update 6/30/2011

The School Based Research and Practice Network
Center for Public Health Practice
Graduate School of Public Health
University of Pittsburgh

Working in Cooperation with the
Clinical & Translational Science Institute
University of Pittsburgh

Samuel Stebbins, MD, MPH
Project Lead Investigator

Charles J. Vukotich, Jr. MS
Project Director

Questions regarding this document should be directed to:

Charles J. Vukotich, Jr.
A711 Crabtree Hall
130 DeSoto Street
Pittsburgh PA 15261
412-383-2400
charlesv@pitt.edu

This publication was made possible by Grant Number UL1 RR024153 from the National Center for Research Resources (NCRR), a component of the National Institutes of Health (NIH), and NIH Roadmap for Medical Research. Its contents are solely the responsibility of the authors and do not necessarily represent the official view of NCRR or NIH. Information on NCRR is available at http://www.ncrr.nih.gov/. Information on Re-engineering the Clinical Research Enterprise can be obtained from http://nihroadmap.nih.gov/clinicalresearch/overview-translational.asp.
The School Based Research and Practice Network (SBRPN), founded July 1, 2008, as a partnership between the Clinical and Translational Science Institute (CTSI) at the University of Pittsburgh and the Center for Public Health Practice (CPHP) at the University of Pittsburgh Graduate School of Public Health, has a mission to help investigators create well designed, school-based research and connect them to partner schools. CTSI promotes research through providing assistance to investigators for their research projects and supporting a research-informed community. CPHP is a catalyst for engaged scholarship in public health and public health-related topics through applied research, practice-based teaching, and professional service.

PURPOSE
This White Paper is produced by CPHP in conjunction with the school districts in Western Pennsylvania. It reflects the experience gained by the authors through exploration of research needs and topics with school districts and their personnel. The contents also reflect lessons learned from previous school-based research, both by the authors and other investigators.

Translational science is the process by which scientific discoveries are progressively turned from laboratory (or other specialized environments) findings to practical applications. Successful school-based research results in findings which have daily usefulness for school and educational systems, and which provide a scientific basis for the development of school policy.

RESULTS
This assessment finds that most school districts are not participating in research activities. A few have research projects, with Pittsburgh Public Schools being the most actively involved. Most school systems are very open to consideration of research—if they feel the projects are appropriate and designed with student improvement and wellness in mind. Schools would like to have effective solutions to the problems they confront.

The paper highlights physical, mental, and public health topics which the school districts indicated are of particular interest and which are or may be amenable to research. Table 2 summarizes these topics. Investigators are encouraged to review these data to see which school districts have interests which coincide with theirs, as a shared interest is typically a very good starting point. In this paper the authors also delineate successful research projects which the Network has supported.

THE NETWORK
The School Based Research and Practice Network (SBRPN or Network) began in 2008 with support from CTSI in order to enhance community-based research in Allegheny County. The program has developed a successful model and is expanding to include Western Pennsylvania. The main objectives of SBRPN are to:
1. Work with school districts and individual schools to develop a prioritized list of individual and public health issues most in need of research, and, application of research results into school settings;
2. Identify researchers interested in school-based research at CTSI-affiliated organizations including the University of Pittsburgh, University of Pittsburgh Medical Center (UPMC), and Carnegie Mellon University;
3. Inform researchers about working in schools/communities and the opportunities and challenges inherent in such research;
4. Link schools and researchers for projects of common interest and benefit, and follow-up both the process and the results.

Both Network and CTSI staff may be called upon for assistance in developing or implementing school-based research. The specific services provided are listed below.

Network staff can:

1. Help design research which is “school friendly”; 
2. Advise and assist on writing grant proposals, including design, implementation, and incentives;
3. Provide feedback on existing protocols and proposals;
5. Introduce and match researchers with schools and school systems;
6. Facilitate implementation of research protocols;
7. Assist researchers to find temporary staff or volunteers for school research tasks;
8. Coach and train staff working in schools; and
9. Provide outreach to public, private, parochial, and charter schools in Pittsburgh and Allegheny County.

To reach the Network, contact the Project Director, Charles J. Vukotich, Jr., at 412-383-2400 or charlesv@pitt.edu.

The Clinical and Translational Science Institute can provide additional assistance with a broad range of research issues, including:

1. IRB submissions and regulatory compliance;
2. Recruitment;
3. Study design and methods;
4. Assistance with grants and proposals; and
5. Mentoring.

To access the Research Facilitator Program, contact CTSI at www.ctsi.pitt.edu and appropriate assistance will be made available.

The services from CTSI may be subject to some limitations. Contact CTSI directly to determine your eligibility to receive services.
BACKGROUND
Allegheny County has 1.2 million residents, with approximately 200,000 in grades K–12. There are 43 public school districts (see figure 1). An additional 18 school districts border the county. These range in size from less than 1000 to more than 25,000 students, and representing urban, rural, and suburban neighborhoods. There are numerous parochial, private, and charter schools as well.
METHODS
Starting in 2008 Network staff has met with nearly every public school district in Allegheny County as well as representatives of the Diocese of Pittsburgh (see Table 1). In addition, the project has expanded into Western Pennsylvania and met with 15 of the 18 districts surrounding Allegheny County. It has also met with 9 private/charter schools and the Allegheny Intermediate Unit.

Meetings were held with districts to:

1. Introduce the Network and the roles of CTSI and CPHP;
2. Provide contact information;
3. Identify any existing research being done in the district;
4. Identify the process for developing partnerships between interested schools and investigators and submitting research to the school district;
5. Talk about research and Pitt/UPMC/Carnegie Mellon; and
6. Identify research interest of the school district.

SBRPN met with the superintendent and school staff as selected by the Superintendent, usually the school principals and senior staff. The context for the meeting was: What are you interested in? What are you curious about? What would you like to know? If the Network could send an investigator from the University, what would you have that person do? Specific focus group questions were asked: What are some of the pressing health or educational issues within your school or district that could be the focus of research? What concerns or issues would you have about conducting research in your school or district? What would you want researchers to know about your school and students?

A total of 42 out of 43 school districts in Allegheny County met with Network staff at least once, in addition the Archdiocese of Pittsburgh which supports more than 50 schools. Meetings were held with 15 of the 18 districts surrounding Allegheny County. See Tables 1A, B and C for a summary of results.

**TABLE 1A: SBRPN met with these school districts in Allegheny County.**

<table>
<thead>
<tr>
<th>Allegheny Valley</th>
<th>Deer Lakes</th>
<th>Montour</th>
<th>South Allegheny</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avonworth</td>
<td>Diocese of Pittsburgh</td>
<td>Moon</td>
<td>South Fayette</td>
</tr>
<tr>
<td>Baldwin-Whitehall</td>
<td>Duquesne</td>
<td>Mt. Lebanon</td>
<td>South Park</td>
</tr>
<tr>
<td>Bethel Park</td>
<td>East Allegheny</td>
<td>Northgate</td>
<td>Steel Valley</td>
</tr>
<tr>
<td>Brentwood</td>
<td>Elizabeth Forward</td>
<td>North Hills</td>
<td>Sto-Rox</td>
</tr>
<tr>
<td>Carlynton</td>
<td>Fox Chapel</td>
<td>Pine Richland</td>
<td>Upper St. Clair</td>
</tr>
<tr>
<td>Chartiers Valley</td>
<td>Gateway</td>
<td>Plum</td>
<td>West Allegheny</td>
</tr>
<tr>
<td>City of Pittsburgh</td>
<td>Hampton</td>
<td>Quaker valley</td>
<td>West Jefferson Hills</td>
</tr>
<tr>
<td>Clairton</td>
<td>Highlands</td>
<td>Riverview</td>
<td>West Mifflin</td>
</tr>
<tr>
<td>Cornell</td>
<td>Keystone Oaks</td>
<td>Shaler</td>
<td>Wilkinsburg</td>
</tr>
<tr>
<td></td>
<td>McKeesport</td>
<td></td>
<td>Woodland Hills</td>
</tr>
</tbody>
</table>
TABLE 1B: SBRPN met with these school districts outside Allegheny County.

<table>
<thead>
<tr>
<th>Ambridge</th>
<th>Freeport Area</th>
<th>New Kensington/Arnold</th>
<th>Seneca</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canon-McMillan</td>
<td>Hopewell</td>
<td>Norwin</td>
<td>South Butler</td>
</tr>
<tr>
<td>Fort Cherry</td>
<td>Mars Area</td>
<td>Penn-Trafford</td>
<td>Yough</td>
</tr>
<tr>
<td>Franklin Regional</td>
<td>Monessen</td>
<td>Peters Township</td>
<td></td>
</tr>
</tbody>
</table>

TABLE 1C: SBRPN met with these private/charter schools.

<table>
<thead>
<tr>
<th>Central Catholic HS</th>
<th>Ellis School</th>
<th>Oakland Catholic HS</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Children’s Institute Day School</td>
<td>Falk Laboratory School</td>
<td>Propel Charter School</td>
</tr>
<tr>
<td>Community Day School</td>
<td>Kentucky Avenue School</td>
<td>Sewickley Academy</td>
</tr>
</tbody>
</table>

RESPONSES
Information from these meetings has been collected, organized, and is presented below.

Background and Process
School superintendents and school district staff are very concerned about the well-being of their students. These interviews display a universal dedication to young people which is inspiring. School districts are broadly interested in research if it will benefit the students and teachers.

All schools have concerns about improving test scores, improving academic performance, and decreasing the social maladies affecting children in their schools. They want their children to do well academically and to be healthy individuals. They are broadly interested in how a wide variety of factors affect academic performance so that they can make changes to the educational system that result in improvement for their students.

Institutional Review Boards
Doing research in schools requires approval. In general, proposals are submitted directly to the district Superintendent. In some cases, school board approval is also required. Three school districts have formal IRB processes or are developing them, including the City of Pittsburgh, Woodland Hills, and Steel Valley. No school district permits research to be conducted without the approval of the Superintendent. Principals are not authorized to allow research to be conducted in their school.

Research Interests
Responding school districts expressed interest in 78 research topics as noted in Table 2 below. Please note that there may be thematic overlap, e.g. “wellness” and “nutrition”, or “anxiety” and “bullying”. The number of school districts indicated significant interest in each topic is listed in the middle column. Investigators are cautioned to understand that
the number of school districts should not be used as a proxy for “importance” of the issue, since project queries were open-ended and not exhaustive. Comments within the table and commentary following it are intended to give investigators additional insight.

### TABLE 2: Alphabetical Listing of Research Interests of School Districts

<table>
<thead>
<tr>
<th>Research Area</th>
<th># of Sch Districts</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absenteeism</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>ADHD</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Allergies</td>
<td>3</td>
<td>What is the cause of the large increase in our school?</td>
</tr>
<tr>
<td>Anxiety</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Arts/Music Education</td>
<td>3</td>
<td>What is the impact of these programs on academic performance?</td>
</tr>
<tr>
<td>Aspirations</td>
<td>2</td>
<td>How do you create aspirations in students and parents?</td>
</tr>
<tr>
<td>Asthma</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Autism</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Brain Functioning</td>
<td>1</td>
<td>How does this impact learning styles and teaching approaches?</td>
</tr>
<tr>
<td>Breakfast Programs</td>
<td>1</td>
<td>How do school breakfast programs impact academic performance?</td>
</tr>
<tr>
<td>Bullying</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Busing</td>
<td>1</td>
<td>How can this become a positive experience for all riders?</td>
</tr>
<tr>
<td>Catastrophic Illness</td>
<td>5</td>
<td>How do we integrate students back into the school environment after something like a serious concussion?</td>
</tr>
<tr>
<td>Cell Phone Policies</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Channeling Students</td>
<td>1</td>
<td>What is the best path for students (work, tech school, college), and programs that are relevant for success?</td>
</tr>
<tr>
<td>Classroom Sensory Environment</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Class Size</td>
<td>1</td>
<td>What is the optimum balance of size, cost, and outcome?</td>
</tr>
<tr>
<td>Cultural Sensitivity</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Data Driven Management</td>
<td>2</td>
<td>How can schools get better data?</td>
</tr>
<tr>
<td>Depression</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Diabetes</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Disparities</td>
<td>1</td>
<td>What are the differences between lower performing and higher performing schools?</td>
</tr>
<tr>
<td>Dropout Prevention</td>
<td>5</td>
<td>What factors in grades 4–5–6 predict</td>
</tr>
</tbody>
</table>

---

1 The word “parent” is used in this document to be inclusive of all forms of child guardianship whether children are “natural”, “step”, “adoptive”, “foster”, or other possibilities.
<table>
<thead>
<tr>
<th>Topic</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug/Alcohol</td>
<td>4</td>
</tr>
<tr>
<td>Economy</td>
<td>2</td>
</tr>
<tr>
<td>Emergency Planning – Special Needs Students</td>
<td>1</td>
</tr>
<tr>
<td>Energy Drinks</td>
<td>1</td>
</tr>
<tr>
<td>Enrichment</td>
<td>1</td>
</tr>
<tr>
<td>Family Doctor</td>
<td>1</td>
</tr>
<tr>
<td>Gender Specific Education</td>
<td>3</td>
</tr>
<tr>
<td>Gifted Education</td>
<td>1</td>
</tr>
<tr>
<td>Girls Behavior</td>
<td>1</td>
</tr>
<tr>
<td>Grading</td>
<td>1</td>
</tr>
<tr>
<td>Green Building Technology</td>
<td>1</td>
</tr>
<tr>
<td>Health Insurance</td>
<td>1</td>
</tr>
<tr>
<td>Homework</td>
<td>2</td>
</tr>
<tr>
<td>Infectious Diseases</td>
<td>6</td>
</tr>
<tr>
<td>Injury Prevention (playground)</td>
<td>1</td>
</tr>
<tr>
<td>Labeling Students</td>
<td>3</td>
</tr>
<tr>
<td>Long Term Impact Of Education</td>
<td>3</td>
</tr>
<tr>
<td>Medication</td>
<td>1</td>
</tr>
<tr>
<td>Mental Health</td>
<td>28</td>
</tr>
<tr>
<td>Obesity</td>
<td>19</td>
</tr>
<tr>
<td>Parental Involvement</td>
<td>19</td>
</tr>
<tr>
<td>Post Traumatic Stress</td>
<td>1</td>
</tr>
<tr>
<td>Poverty</td>
<td>5</td>
</tr>
<tr>
<td>Professional Development</td>
<td>2</td>
</tr>
<tr>
<td>Reading</td>
<td>4</td>
</tr>
<tr>
<td>Refugees</td>
<td>2</td>
</tr>
<tr>
<td>Role of the Guidance Counselor</td>
<td>1</td>
</tr>
<tr>
<td>Role of the Principal</td>
<td>2</td>
</tr>
<tr>
<td>Role of the School Nurse</td>
<td>1</td>
</tr>
<tr>
<td>School Alternatives (Cyber, Charter, etc.)</td>
<td>11</td>
</tr>
<tr>
<td>School Closure – Emergency</td>
<td>1</td>
</tr>
</tbody>
</table>

**Question:** How do parent issues such as dealing with job loss, etc. affect their students?

**Answer:** Does it make a difference?

**Answer:** Doctors saw children and their families for years and could monitor and advise. Does anyone have a family doctor now?

**Question:** Does LEED certification lead to better academic performance?

**Answer:** How can you reduce costs in a cooperative plan?

**Question:** What is the optimal level?

**Answer:** Why do girls seem more aggressive/violent?

**Question:** Is there grade inflation?

**Answer:** Does LEED certification lead to better academic performance?

**Question:** How can you reduce costs in a cooperative plan?

**Answer:** Why do students seem to be taking more medications?
### The School Based Research and Practice Network

**School Day/Year Structure** | 13
---|---
### closed for an emergency (i.e., pandemic)?

**School Readiness/Kindergarten** | 16
---|---
What kind of K is best? Are some students being entered too young and not yet ready?

**Security** | 3
---|---
One district has a uniquely large campus.

**Sick Building Syndrome** | 1
---|---

**Single Parent Families** | 1
---|---

**Sleep** | 4
---|---

**Social Structure** | 2
---|---
Are kids losing social structures/skills due to technology?

**Special Services** | 1
---|---
Are these effective?

**Sports and Education** | 2
---|---
How do sports affect education?

**Staff Health** | 4
---|---

**Student Assistance Programs/Special Education** | 8
---|---
Are these effective? What are the affects of labeling/channeling students? How can technology be better used with these students?

**Student Decision Making** | 1
---|---
How do students make decisions?

**Student Motivation** | 8
---|---
How do you motivate students? Does connectedness to school community affect student motivation? How do you motivate students with behavioral, academic, and disciplinary problems? What are demotivating factors?

**Suicide** | 1
---|---
Seem to be many suicides in the years immediately after graduation. Is there a school effect?

**Supercleaners** | 1
---|---
Are these making things too clean? Are they bad for the environment?

**Teacher Collegiality** | 2
---|---
How do we improve this on a campus where teachers may not be in the same building? How can teachers be collaborative?

**Teacher-Parent Interactions** | 1
---|---
Can you help teachers communicate and work with parents more effectively?

**Teacher Qualifications** | 2
---|---

**Technology Effectiveness** | 18
---|---

**Teen Pregnancy** | 5
---|---

**Testing** | 12
---|---
How much is right?

**Transience/Homelessness** | 4
---|---
Effect on academic achievement? How many students who start in K, finish in 12? Effect on overall school performance?

**Transition – Middle to High School** | 2
---|---

**Wellness/Illness/Fitness** | 24
---|---
Research: Specific Topics of Interest

The following section provides additional information and insight into the most common and important areas of interest. These listings are of particular interest to researchers because of the specific topics and the associated comments. These comments from 33 school districts provide additional detail about the interests and concerns of respondents.

1. Mental Health: Schools have a broad range of concerns - school phobia, anxiety, harassment/bullying (including cyber bullying), depression, resilience, ADHD, drug/alcohol, and even “Münchausen by Proxy”. They are concerned about students entering school with mental health problems. Drug and alcohol problems seem to be having younger ages of initiation. There is a perception that autism is increasing.

Schools want to know the determinants of mental health issues: environmental, social, economic, and family. They also wonder if this is a multigenerational issue: To what extent are “problem” students the children of “problem” parents?

Schools want to know the impact of mental health issues on academic achievement, and what they can do about mental health issues. Public policy requires that schools have to first diagnose and thus “label” kids in order to help them, but schools wonder about the impact of such labeling on the student.

One school administrator observed an increase of suicide in students after leaving school and wondered if this is related to loss of support systems in school.

2. Wellness/Illness/Fitness²: All expressed a broad concern for student health. There were four main foci:

- Schools want to know how factors affect academic achievement. One principal said, “I wonder what percent of my poor test scores are directly related to illness in my students.” Many believe that they can improve test scores and academic achievement with a higher level of fitness among their students.

- Schools want to know if it is possible to achieve a greater level of wellness among students. They are confused by possible external factors - SES, home, race, etc. Schools don’t fully understand the characteristics of a healthy adolescent lifestyle - emotional, mental, nutritional, sleep, etc. They want to know what they can do that will be effective.

- Schools wonder about the role of school-based nutrition among all the factors contributing to poor nutrition/obesity.

² Technically, these terms have different meanings, but they are often used interchangeably. Different school districts used different terms to express the same issues.
• One school district suggested that physical education could become the practicum for what was taught in health, and how this might impact obesity, fitness and wellness.

Two schools mentioned this issue with regard to staff, as they feel that school district employees have high stress jobs.

3. **Obesity**: Obesity is an “epidemic.” This is related to wellness/illness/fitness.
   • Schools are interested in learning how obesity affects academic performance, self esteem and peer relationships, especially in pre-teen and teen populations. Schools wonder about how they can effectively intervene and how this can be integrated into their existing school structure, both physical and temporal.

4. **Parental Involvement**: Schools believe that parental involvement is essential.
   • Many schools report in-depth involvement from their parents. Many note that it seems that those students who need parental involvement the most have it the least.

   • Communicating with parents can be a challenge due to hectic schedules, inability to maintain lists of contact information, changing cell phone numbers, etc.

   • Schools wonder if there are ways for them to help parents build parenting skills, yet also if intervening with them is in their mission. Parental needs start with basic skills for some, but also technology, applications (Facebook, Twitter, etc.), and how technology can be a positive/negative force in their children’s life both in and out of school.

5. **Technology**: Several issues were highlighted.
   • Substantial amounts of money are spent on technology, and schools are concerned about ensuring that they are spending it wisely and that the outcomes generated by technology are worth the cost. Schools are not sure how to measure the effectiveness of technology in the classroom and in education. They want to know how technology affects student engagement, critical thinking, academic achievement, placement in jobs, and jobs in the region. Finally, educators are experiencing negative consequences that they attribute to technology, including an inability to write proper sentences and changes in social structures. Technology allows students to do and say things that they wouldn't do in public, even though these things become public. Educators see less physical contact among students, leading to the reduction in the ability to interact, or do things like being able to read facial cues.

   • Schools are noticing what seems like a technology addiction, and are concerned about its impact on students. One school district reports that student caught with cell phones in class can give up their phone or be sent home and be suspended. Students are increasingly taking the suspension, even over parent’s objections.
- Another school had an episode where a student fabricated a story that someone tried to kidnap her to avoid coming to school after an on-line bullying incident.
- Schools wonder where the line is between adolescent fascination with technology and a mental health issue. Schools are interested in both the positive and negative uses and consequences of technology.

6. **School Readiness**: There seem to be fewer students entering kindergarten who are school ready. What factors affect readiness?

7. **School day/year structure**: Schools have questions about the structure of the school day and/or school year.
   - Previous research has suggested that the existing structure is inefficient. For example, some research has suggested that teens should start later. No school districts have changed their school day or school year structure. They seem interested in knowing if school would be better if it started later in the day or if it was year round.
   
   - Schools also have questions around the way the school day is structured. The value of full vs. half day kindergarten is still of interest. One principal asked: “Do kindergarteners have a biorhythm?” Schools would want to tap into this information to create a kindergarten program that matches their students and is the right length for their development.
   
   - The issue of grade grouping was also an area of interest. School children seem to be “maturing” earlier, both physically and socially. They are more advanced at an earlier age. The perception is that, in some ways, today’s fifth graders are like the seventh graders of 20 years ago. It seems that experimentation in drugs and sex is coming at an earlier age. Schools are interested in the implications of these changes. For example: When does middle school start? What are the appropriate distinctions between elementary, middle school/junior high, and high school? Also, the issue of transitions between schools is of concern. Some schools have noted a dip in academic performance in the 5–6 grade transition.

8. **Anxiety**: Schools believe that childhood anxiety is real and may be more widespread than it seems. They wonder about the causative factors, which of these are school associated, and how these might be addressed.

9. **Absenteeism**: Schools wonder about the underlying causes of absent students, how repeated absence affects academic performance, and what can be done to reduce missed days. Schools are also interested in reducing teacher absenteeism.

10. **Testing**: Standardized testing has become a fact of life for schools.
    - Schools at all levels of academic achievement wonder if all the testing and test scores actually measure academic performance of students and truly show increase in knowledge vs. facts. On the other hand, most schools would be interested in learning how to improve scores.
Schools are concerned that testing may be counterproductive, interfering with instructional time and learning. They wonder about the optimal level of testing, and the efficacy of graduation exams.

Schools wonder about the impact of low performing subgroups on their overall scores, and to what degree results from those groups should be included in schools-wide results.

11. **Cyber/Charter Schools**: Schools have questions about the effectiveness of cyber and charter schools. They wonder if these alternatives are effective and how they impact school districts. Some schools are creating their own cyber schools. One district asked: Will public schools disappear? Will there only be cyber, charter and private schools?

**Research: Additional Topics**

- The theme of “best practices” wound its way around many discussions. There are a lot of educational programs. All claim to be the “new, best” thing. Research about these programs is often proprietary, so schools only have the company’s word. Lots of schools are interested to know what is best, or best for them and their students. They want to know how to evaluate programs or if it is even possible to do so. In addition, they have multiple programs, but don’t know how they fit together or what the optimal mix is. Schools would also like to be able to pull it all together, finding the optimal mix or all factors in education, wellness, instructional programs, technology, interventions, etc.

- It is perhaps surprising that topics such as Asthma and Diabetes weren’t mentioned more regularly. It is possible that these were not perceived as “research” issues, or they are thought of as the “school nurse’s problem,” or may be simply related to the method in which information was gathered in this paper. It is worth noting that the Network has been successful in working with school districts and investigators to initiate several projects looking at asthma, and that diabetes has been an important topic as well.

**Research Integrity, Student Safety, and Parental Concern**

- Institutional Review Boards (IRBs) are designated to approve, monitor, and review research involving humans with the aim to protect the rights and welfare of the research participants. There are school districts in Allegheny County that have, in the past, had research experiences that were perceived as intrusive or which generated so much parental concern that those districts are reluctant to initiate new projects. The guidance of the IRB can help prevent situations which would tend to create problems. The Network can advise investigators on strategies that are most likely to be successful, and least likely to create problems.
SUCCESSFUL RESEARCH

- The Network has linked eleven research projects to 30 different school districts and 162 public, private, charter and parochial schools in the region (see Figure 1) as of June 2011. Settings include rural, suburban, and urban populations, as well as every possible mixture of demographics and socio-economic status. Research projects cover a spectrum from medical to public health to educational to social programs, including environmental asthma, depression, friendship, anxiety, learning fractions, and autism to name a few. More than 1300 children (and in some cases, parents and teachers) have been screened for participation and nearly 700 enrolled in studies (see Table 3).

- In addition, Network staff members have worked with sixteen additional research projects that are either in development or which ultimately did not prove to be a good fit for school-based community research. Although it is always disappointing when a project doesn’t work out, it is also the goal of the Network to help ensure that projects are a good fit, so as to not waste the time of both the researchers, the schools, and the potential participants and their families.

TABLE 3: Investigators Matched with Schools

<table>
<thead>
<tr>
<th>PI</th>
<th>Title</th>
<th>School Districts</th>
<th>Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ryan, Neal</td>
<td>Childhood Anxiety Treatment Study</td>
<td>6</td>
<td>33</td>
</tr>
<tr>
<td>Holdguin, Fernando</td>
<td>Pediatric Environmental Asthma</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>Shaw, Daniel</td>
<td>Early Steps</td>
<td>1</td>
<td>26</td>
</tr>
<tr>
<td>Minshew, Nancy</td>
<td>NIH Autism center of Excellence</td>
<td>8</td>
<td>36</td>
</tr>
<tr>
<td>Akers, Aletha</td>
<td>Teacher Your Children Well Phase 1 – Technology at Home</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Cousins, Jennifer</td>
<td>Sleep Education</td>
<td>pending</td>
<td>pending</td>
</tr>
<tr>
<td>Sparto, Patrick</td>
<td>Concussion</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Noll, Robert</td>
<td>Friendship Study</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Kovacs, Maria</td>
<td>Depression Study</td>
<td>7</td>
<td>34</td>
</tr>
<tr>
<td>PSLC</td>
<td>Pgh Science of Learning Center</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Siegler, Robert</td>
<td>Fractions</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Stories of success - firsthand accounts of interactions by investigators - are listed in Appendix 1.

DISCUSSION AND CONCLUSIONS

As the information in this paper shows, schools have a broad range of research interests. School staff members are curious about how research can help them help their students. This curiosity would make them excellent partners in the research process. Most school districts have little research being conducted, with the major exception being the Pittsburgh Public Schools. This suggests that there are many opportunities to work with schools. Most schools are very open to consideration of projects if they feel they are appropriate and designed with student improvement and wellness in mind. Schools would like to have effective solutions to the problems they confront.
All schools would like to see research that:

1. Minimizes disruption of students;
2. Minimizes use of class time;
3. Creates little/no work for the school staff;
4. Has clearly appropriate consent processes;
5. Maintains strict confidentiality; and
6. Has direct and obvious value to the school and district.

Some schools have expressed concerns about research, but through open and honest communication it may be possible to work with any school district. Schools have expressed concerns about “surveys,” especially ones associated with “market research.” Some will not allow surveys.

Schools can be valuable partners in the design of research projects when they are engaged as co-participants, especially for projects that are in the planning, design, and application process.

Investigators have many resources to help make them successful. CTSI provides many services. The School Based Research and Practice Network can help with nearly any school related issue. No investigator with a potential interest in working in schools, or with the school-aged population, should conclude that his/her project would be inappropriate for the school setting without talking with Network staff.
APPENDIX 1: Stories of Success - First Person Accounts
The following are all quotes from investigators (PIs, unless otherwise noted) who have worked with the School Based Research and Practice Network.

Dr. Nancy Minshew:
Working one-on-one with the person who is the main contact with the schools (Chuck Vukotich) has given us the ability to know which school districts are interested in our research, therefore making our job much easier. We have always had a difficulty arranging meetings/establishing on-going contact with school districts, so we are enthusiastic to discuss our research with these groups and hopefully reach a new segment of the community. Also, contacting the schools to set up the initial meeting with our center has been a great help.

Dr. Neal Ryan:
During the 2009-2010 school year, the Child Anxiety Treatment Study (CATS) successfully partnered with two Pittsburgh area public schools and the Diocese of Pittsburgh (approximately 13 Catholic schools). Four other public schools have agreed to work with CATS in the upcoming 2010-2011 school year. This accomplishment was largely due to the efforts of the School Based Research and Practice Network. The School Based Research and Practice Network made it possible to know which schools were interested in our area of research and helped plan initial meetings with the appropriate administrative staff.

The long term partnerships we are forging with these school districts will have many indirect benefits for our study and the community in the future.

Moving forward, it would be beneficial to look beyond public schools as way to reach families in need of services. We’ve had some success with the Diocese of Pittsburgh and it would be worthwhile to look at other private schools and alternative schools to examine the possibility future partnerships.

Dr. Daniel Shaw:
I would say that the work you provided our lab was nothing short of sensational and literally ‘project saving.’ We were literally ‘dead’ in obtaining cooperation with the Pittsburgh Public Schools for a Federally funded research project after more than 2 years of trying to gain their cooperation. Thanks to the overt (and sometimes covert) efforts of your office, and specifically Chuck Vukotich, we were able to get the requisite cooperation to obtain teacher reports and have researchers from our lab observe study children at recess and lunch time throughout district schools. The efforts of SBRPN were invaluable in obtaining this goal, as I can honestly say with complete confidence that we would not have been successful in gaining their cooperation without this advocacy.

After a formal agreement was obtained your office continued to provide support, not only volunteering to set up meetings with key district administrators and principals of participating schools with my staff, but meeting with several principals independently to
pave the way for our entrée. These efforts were also terribly valuable in getting off to a good start with principals from several elementary schools.

Dr. Robert Noll:
I do believe in this research and have labored with the methodology for 25 years. You made some strong improvements even though the marketing has been refined for a long time at 8 major pediatric centers. Really impressive and I am glad to have you helping us.

Gail Kusbit, PSLC Project Manager:
As the Research Manager for the NSF-funded Pittsburgh Science of Learning Center (PSLC), co-located at Carnegie Mellon University and the University of Pittsburgh, part of my job is to help our learning researchers find elementary and secondary schools where they can run their studies. We are always looking for more schools who are interested in collaborating with us in our math, science, and language-learning studies, and unfortunately I cannot devote all of the time to recruiting schools that I would like.

I was delighted recently discover the valuable resource of Chuck Vukotich and SBRPN as not only has Chuck’s expertise confirmed that I’ve been doing many things “right” in my recruiting of schools, but he has graciously pointed out some areas where I (and some of our researchers) could make improvements in our recruiting efforts. In addition, Chuck’s utterly essential, time-consuming groundwork of establishing contact with most of the 40+ school districts in Allegheny county, and his having developed even deeper relationships with some of these districts, is invaluable to me as well as our researchers, as it saves us an enormous amount of time trying to make cold calls to schools. In the past, my attempts at cold-calling school administrators failed to generate fruitful responses.

More specifically, within a month of our meeting Chuck, he facilitated our center’s meeting with a local high school (within walking distance of CMU and University of Pittsburgh), which shortly thereafter decided to come on board with PSLC as one of our study sites. Our arrangement with the high school is an open one that stretches for the next 4 years: when one of our researchers wants to run a study in this high school (pre-Algebra, Algebra, Geometry, Statistics, Chemistry, Physics, or Chinese), I can approach the principal to see if any of his teachers are willing to participate. Adding this school as one of our study sites is enormously helpful to PSLC’s meeting its mandate of studying and improving student learning in school classrooms.

Dr. Aletha Akers:
I met Chuck last spring at one of the university’s workshops informing faculty about tips for conducting research in schools. I spoke with him about my research on adolescent sexual health and Chuck displayed an interest and passion for my work that rivaled my own. After meeting with me and my research group, Chuck quickly set into motion a series of steps that culminated in our being linked to 3 schools who were interested in having us conduct a survey that we had been developing. Last fall, we surveyed parents in 3 public middle schools regarding parental access to computers and the internet and
parental interest in web-based programs to help parent learn skills for communicating with their children about various health topics. The process was smooth, aided by Chuck's familiarity with the schools and their staff and his immense knowledge of the personalities (and politics!) of each school. We had not anticipated completing this project until the upcoming school year. Thanks to Chuck, we are a year ahead of schedule. He is a great resource to the school.