

Child Health

**An Interview with Patrick M. Vivier,
Professor of Health Services, Policy and Practice and Director of Interdisciplinary Education Programs,
School of Public Health, Brown University and Institute Director, Hassenfeld Child Health Innovation Institute**

EDITORS' NOTE *In addition to being a pediatrician and doctoral-level health services researcher, Dr. Patrick Vivier has extensive experience in curriculum development and teaching for undergraduates, graduate students, medical students and postgraduate trainees. He is also the Director of Interdisciplinary Education Programs in the School of Public Health at Brown University. In his role as Institute Director of the Hassenfeld Child Health Innovation Institute, Dr. Vivier is responsible for day-to-day operations.*



Patrick M. Vivier

He attended Dartmouth Medical School and Brown Medical School, receiving his degree from Brown in 1989. Dr. Vivier completed his residency in pediatrics at Rhode Island Hospital and also completed a health services research fellowship and received a Ph.D. from the Department of Health Policy and Management in the School of Public Health at Johns Hopkins University.

INSTITUTE BRIEF *Hassenfeld Child Health Innovation Institute (brown.edu/initiatives/child-health) was launched in September 2015 thanks to a \$12.5 million gift from the family of retired Hasbro Chairman and CEO, Alan Hassenfeld. Brown University is raising an additional \$12.5 million to match the founding gift, supporting an integrated approach to research, clinical practice, public health efforts, and educational programs. The Institute, located at Brown University and created in collaboration with Hasbro Children's Hospital and Women & Infants Hospital, targets autism, asthma, obesity and other urgent problems affecting the health of children. Hassenfeld Child Health Innovation Institute seeks to integrate research, clinical practice, public health efforts and educational programs to achieve the following goals: improve the health of children, make the communities it serves among the world's healthiest places for children and their families, address the issue of poverty and how it impacts child health, serve as a national and international model for what can be achieved in child health, and train the next generation of child health leaders.*

Will you discuss the vision for creating the Hassenfeld Child Health Innovation Institute?

The Institute brought a number of different experts together to address four main goals. The

first is to make in Rhode Island, which means a lot to me and the Hassenfeld family, the healthiest place in the world for kids.

To do that, we have to address the second goal of addressing issues of poverty because we know what a strong determinate this will be in the outcome.

Rhode Island is a special place because it's smaller and there are things we can try here that would be difficult to do in a larger place. If we can learn critical things or find new ways to do things, we can then achieve our third

goal of being a national and international model in child health and welfare.

Hopefully, we will get a lot done in our lifetimes, but people younger than us will have a longer chance to do that, and our fourth goal is to train that next generation and make them part of the solutions now and make sure that they are ready to take things further than we can take them.

The vision started with the goal of focusing locally but applying what we learn nationally and internationally.

Will you discuss the collaboration between different entities and what has made these partnerships work so well?

Alan Hassenfeld's gift to the Institute came through Brown, but with the understanding it would include all of Brown's partners.

That brings together the medical school where we can tap into the expertise of its physicians, its school of public health and the other campuses at Brown, as well as the Hasbro Children's Hospital, which is near and dear to Alan's heart. In Rhode Island, 90 percent of inpatient stays for kids are at that one hospital, so it is a great place for us to study and learn what we can do to create better outcomes.

There is also Women and Infants Hospital on the same campus where between 75 and 80 percent of Rhode Island babies are born.

As part of establishing the Institute, each entity was to be a partner from the beginning.

The Institute is led by the executive committee. I serve as director and focus on the day to day operations, but the people who are in charge are part of a three-member executive committee which is comprised of Phyllis A. Dennery, MD, who is the chair of pediatrics at Brown and the pediatrician-in-chief at Hasbro Children's Hospital; Maureen G. Phipps, MD,

MPH, who is the chair of ob-gyn at Brown and the head of ob-gyn at Women and Infants hospital; and myself. The three of us make decisions within the Institute, answering to an advisory council that Alan is on as well as our director of the department of health for the State of Rhode Island and other national leaders.

We have also developed a very close relationship with the Rhode Island state government.

What are the Institute's main priorities?

One of the big projects we're now working on is a comprehensive assessment of child health throughout the state. To do that, we have connected with every state agency doing work with children such as the Rhode Island Department of Health; the Department of Education; the Department of Children, Youth and Families; the Medicaid program; and the Department of Human Services, along with three of the major urban school districts, to study issues from pregnancy to birth to whether third grade kids are reading proficient.

Every month, members of each of these state agencies come together to look at the data we're analyzing to make sure we understand it and figure out how it affects policy.

We even have a deeper dive just for the Department of Health. Once a month, Rhode Island's heads of those departments hold a Children's Cabinet meeting that I attend, where they talk about these issues.

We have a shared dream to make a difference and have all spent time working to bring all the players together to go for it.

Will you touch on the Institute's collaboration with the Fashion Institute of Technology (FIT)?

FIT reached out to Alan to do a special seminar at their school on developing toys specifically for children with autism so they could design toys that would be particularly useful for that community. Alan reached out to us to provide the experts on autism.

Last year, I took one of the leads of our autism initiative, as well as the head of the Rhode Island Autism Project who has an adult child with autism, to FIT. They discussed what autism is and the challenges of being a parent of an autistic child.

We came back a month later and saw PowerPoint presentations of the toy designs the students had come up with and critiqued them. They developed prototypes of these toys, which were impressive.

It's an incredible partnership and we just started the second year. We will come back soon and do another three sessions with them.

We have connected with NYU to get them involved in this effort as well. Much of this will play out in Rhode Island, but it's also about connecting with the world to try to innovate and move forward.

Is a holistic approach necessary when looking to improve children's health?

It has to be if we want kids to get the most out of life that they possibly can.

For instance, our third-grade reading goals depend on having done everything right during pregnancy, such as feeding and nutrition, so they develop normally. These are all related to being able to read in third grade.

We're finding out that a lot of kids can't read by third grade. If we look at why, we find that premature babies, those who are lead poisoned, or those from low-income areas, are much less likely to be reading proficient.

If we want to impact this problem, we have to fix the third-grade classroom and have summer programs, but there are other pressing precursors that need to be examined. Almost any issue that we address must be looked at holistically.

Our healthy weight and nutrition group has been focusing on summer weight gain. There are a number of nutritional options when kids are in school but, when the kids go home, they don't necessarily have access to good food, nor can they be active if their neighborhoods aren't safe. This can lead to poor nutrition choices and weight gain.

We have been conducting summer camps and studying the impact of active living in the summer and what that does for weight gain.

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Success in any of these programs requires bringing parents and those administering the programs together. How are you engaging all of the different parties?

It requires all parties. That is the reality with everything we do.

There might also be structural issues that need to be addressed. Maybe the family can't get access to good food or places where physical activity can take place.

It requires education, but also engineering products to make them better and the enforcement of restrictions on activities that should be against the law. Furthermore, it requires empowering communities to try to get involved in what is happening.

However, there is still a lot that we don't know. For instance, if we are to design better toys that will help kids with autism, there is a lot we need to know about how kids with autism approach play. There is a lot we already know that has not been put to the right use yet, but there is also a lot we don't know.

Our autism group, for example, is also looking at the genetics of autism and realizing that it's probably not just one gene. This may mean that with one genetic profile, we should do things differently than with another genetic profile.

It's the same thing with asthma; we're looking at markers and biomarkers to understand what is developing and putting kids at risk.

That is where the heavy focus on science comes in.

Does this effort need to be driven at the public level or by the private sector?

It is a partnership. Everybody needs to be involved.

We are anxious to try to increasingly work with the private sector, be it the Hasbro toy company or others. The nonprofit sector is important as well.

The government also plays an important role – there are things government can do that those other sectors can't.

I don't think we can say this is just a healthcare industry problem or a government or private sector problem. The only way this will be solved is if everyone makes this a priority.

How do you define success for the Institute?

We need a healthy tension between patience and impatience. We have to be realistic about where we can go, but if we keep grading on the curve, we will never get to where we need to be. It's a balance.

We're trying to work on metrics on a micro level – we tried this intervention, did it work? Is it interesting enough that we want to make this a national or international model? Looking at metrics on those manageable levels helps us figure out what we should try to scale up.

For instance, we're partnering with state government on the third-grade reading level. The governor of Rhode Island said that 75 percent of babies born last year need to be reading proficient by the third grade. It's currently 40 percent. This helps us develop a solid metric.

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The spirit of innovation has to be all of us moving these metrics and how we leverage all of the pieces we have and then measure to see if we're accomplishing something or not. Then everyone can take credit.

Are you able to enjoy the process and celebrate the wins or is it always about what's next?

We try to find a balance. We do try to be happy when something happens and try to celebrate reaching intermediate goals.

For the asthma team to be only one of four in the country to get a certain grant and to know that this was all attributed to the team that took advantage of everything the Institute was designed to do and leveraged it to do something amazing, was a great feeling.

We were able to get every state agency to share data and personnel to examine the data school district by school district. To connect these data sets in this short of a time and have every director of every department be focused on this kind of child health issue is amazing.

To be able to see the deans and all of these centers working together is also amazing.

These successes are celebrated for a short period, but most of the day is spent focusing on the things we haven't done yet.

Are you concerned about attracting the next generation of health leaders and what do you tell young people about a career in medicine?

We're always enthusiastic with learners. If I'm talking to a first-year medical student, the energy they bring into this energizes me.

I sometimes lament about the way things used to be and it is challenging to make a difference today, but we have incredible people and they are going to make a difference.

I'm excited when I talk with the students and they're excited too. ●