

★ *A Message From the Principal Investigator – Matthew W. Gillman, MD*

★ What's up in Project Viva?

★ Just as your child is about to reach school age, Project Viva is also coming of age. In this newsletter you will see that **we have found some very interesting results** that are being published in leading medical journals and publicized in the media. These findings are poised to help families make healthy lifestyle choices and to help medical providers deliver better care.

★ Where is Project Viva going from here?

★ Children who are 5-8 years old are special for many reasons. From the point of view of their health, almost all children who will develop asthma have done so by these ages. With the challenges of beginning school, children's behavior can become an important issue. At these ages, we also have a pretty good handle on whether a child will be overweight a few years later. Asthma, behavior issues, and obesity are 3 child health problems that are certainly not going away any time soon.

★ So we need to know: **What causes asthma, behavior issues and obesity, and what can we do to prevent them?** Project Viva is in a very special place to be able to answer these questions. Remember that we started seeing you while you were pregnant, and we've been in contact with you regularly ever since. That means that we have information about the origins of child health at the very earliest stages of development, even before birth. Hardly any other research study has tackled important health questions in this way.

★ Should we be fortunate to receive continued funding, our plan is to remain in contact with you and your Viva child for an additional four years. At ages 5 and 7, we'll mail you a questionnaire (not too long!) to fill out and mail back, just like we did at ages 1, 2, and 4. At ages 6 and 8, we will invite you and your child to participate in an in-person visit much like our 3-year-old visit.

We will be able to answer questions like:

- How do stressful events during pregnancy influence the onset of asthma in school-age children? What does development of a child's immune (infection-fighting) system have to do with it? Can moms change these patterns by stopping smoking or breastfeeding for a longer period?
- What's the real story with fish? Is eating fish during pregnancy good for children's thinking ability? How much does mercury, which is found in some fish, get in the way?
- To what extent are the types of fats eaten by the mother during pregnancy and transferred to the fetus in cord blood related to being overweight 5-8 years later? Can changing diet during pregnancy help protect against development of obesity in the next generation?

Whether it's a mailed questionnaire or an in-person visit, your and your child's participation are crucial to Project Viva's success. As we prepare for our next Viva visit, we offer our thanks and encourage you to remain a part of Project Viva – A Study of Health for the Next Generation.

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Project Viva Articles

Decline in fish consumption among pregnant women after a national mercury advisory

Oken E, Kleinman KP, Berland W, Simon SR, Rich-Edwards JW, Gillman MW
The American College of Obstetrics & Gynecologists Vol. 102, No. 2, August 2003

A well-publicized January 2001 federal advisory recommended that pregnant women limit consumption of certain fish because of concerns about mercury contamination. We studied the effect of this advisory on fish intake by women enrolled in Project Viva. We found that women surveyed after the advisory reported consuming less dark meat fish, canned tuna and white meat fish, and ate approximately 1.4 fewer total fish servings per month after January 2001. Because fish may also contain healthy nutrients, such as omega-3 fatty acids, the public health implications of this decreased fish intake remain unclear.

Fetal origins of obesity, Oken E, Gillman MW, Obesity Research Vol. 11, No. 4, 2003

A number of studies now suggest that exposures that occur before birth may increase one's risk for later obesity. Higher birth weight is associated with higher body mass index (BMI), a measure of obesity, in later life. Additionally, lower birth weight is associated with later central obesity (a relatively large waist, or the "apple shape"), and increased risk for heart disease, high blood pressure, and diabetes. Prevention of obesity starting in childhood is critical, and may improve lifelong health.

Perinatal predictors of atopic dermatitis occurring in the first six months of life

Moore M, Rifas-Shiman S, Rich-Edwards JW, Kleinman KP, Camargo C, Gold DR, Weiss ST, Gillman MW, Pediatrics Vol. 113, No. 3, March 2004

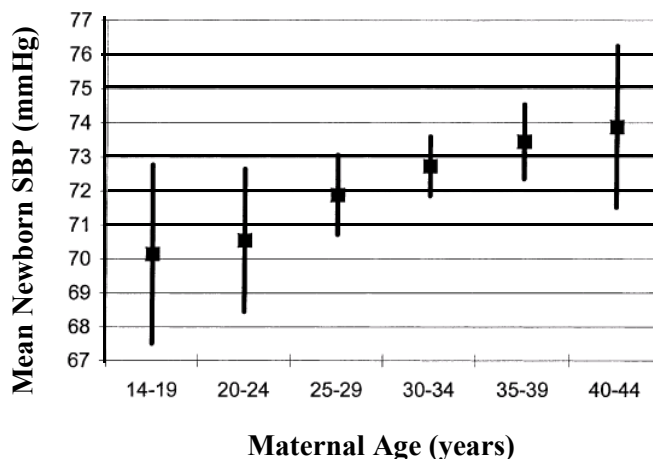
Atopic dermatitis, or eczema, is a common, chronic, itchy allergic skin disease that usually starts in infancy and early childhood. We investigated factors that were associated with atopic dermatitis in the infants enrolled in Project Viva. 17% of infants in Project Viva had been diagnosed with atopic dermatitis in the first 6 months of life. African-American and Asian-American infants, infants born at later gestational ages, infants whose mothers or fathers had allergic disorders, particularly eczema, but also asthma and hay fever, and young males were all more likely to have eczema. Our findings suggest that genetic and environmental factors, as well as prenatal factors, may influence the development of eczema.

Maternal age and other predictors of newborn blood pressure

Gillman MW, Rich-Edwards JW, Rifas-Shiman S, Lieberman E, Kleinman K, Lipshultz S.
Journal of Pediatrics Vol. 144, No. 2, February 2004

You may recall our measuring blood pressure on your child in the newborn nursery. Among about 1000 Project Viva babies, blood pressure level was higher in newborn infants of older mothers (see figure below). We couldn't explain this finding by the fact that older moms tend to have higher blood pressures themselves, or any other factor we measured. The bottom line, though, is that blood pressure in newborns doesn't mean the same thing as blood pressure later in life. So mothers in their 30s and 40s should not worry about creating high blood pressure in their children.

Figure



Mean and 95% CI for newborn systolic blood pressure (SBP) by maternal age group. Data from 1059 mothers and newborns participating in Project Viva.

Preterm delivery in Boston before and after September 11, 2001

Rich-Edwards JW, Kleinman KP, Strong EF, Oken E, Gillman MW.

In press, Epidemiology, 2004.

The terrorist attacks on September 11, 2001 were the most traumatic national events in U.S. history. National surveys found elevated rates of posttraumatic stress disorder, distress, and major depression among Americans, especially those living in New York City. There is a theory that women exposed to stressful events during pregnancy might be more likely to deliver preterm. We examined whether Project Viva participants who were pregnant on September 11 had shorter pregnancies than Project Viva participants who had delivered in the year before the terrorist attacks. Contrary to expectation, we found that women pregnant on September 11 actually had *longer* pregnancies. Anecdotally, the obstetricians noted that many women felt a renewed commitment to family and a strengthened bond with their community in the months after September 11 — we speculate that this sense of gratitude or belonging may have outweighed the anxiety from the terrorist event, at least for Boston-area women who were far from the actual sites of the attacks.



Things to do when the TV is off

Give these fun activities a try when the TV is off.

- Build a fort with sofa and seat cushions. Add blankets for a “tent”.
- Take out all your clothes and let your children play dress-up.
- Enlist your children as “assistant chefs”.
- Let your kids organize pictures from scrapbooks or albums. “Look at how you’ve grown!”
- Go for a post-dinner walk. Not only do your kids get physical activity, but they’ll enjoy some private time with you.

Kindergartner-Friendly Recipes

Try these easy, no bake recipes with your four-year old.

These and other kid-approved recipes can be found on www.justkidrecipes.com.

Peanut Butter Bananas

6 Firm bananas
12 Popsicle sticks or molds
1/2 C Sweetened condensed milk
6 Tbsp Peanut butter
Chopped nuts or crunchy cereal

Peel bananas, cut in half and place a wooden stick in each banana. Mix peanut butter and milk until mixture is smooth. Roll the bananas first in the milk/PB mixture then in the crunchy mixture. Cover with plastic and freeze.

Frosted Banana Pops

6 Firm bananas
12 Popsicle sticks or molds
1 C Chocolate sauce
1/2 C Shredded coconut

Peel bananas, cut in half, and place a wooden stick in each banana. Dip bananas in chocolate sauce then in coconut to cover. Wrap a plastic bag around the banana leaving the stick out. Use a twist tie to secure bag around stick and freeze.

**Questions & Answers
About When Your Child is 5 Years Old**



Q: When will I be contacted again?

A: We are currently following our Viva kids until they are five years old. We will send you a short questionnaire around the time of your child's 5th birthday. We hope to receive additional funding to continue following our Viva kids for several more years.

Q: I moved. Can I still participate?

A: Yes! Everyone's information is important to us. Even if you have moved away from the Boston area you can still fill out a questionnaire. If your contact information has changed since we last contacted you, please call our hotline (see below) with your new address and phone number.

Q: When will I find out the results of the information that has been collected?

A: This issue of Viva Views contains some articles we have published. Feel free to visit our website to view publications and back issues of our annual newsletter.

Check us out at: www.dacp.org/viva.html.

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Moving? Please call us with your new address and phone number at 1-800-598-4247 ext. 86067

Or e-mail us at Project_Viva@hphc.org

Viva Views

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