



Ann Rosewater: Policy Adviser

When Ann Rosewater first worked with Congress on policy to improve the lives of children, youth and families, she had Dr. T. Berry Brazelton, dean of American pediatrics, at her side.

She recalls the popular doctor's appearance at a 1983 meeting of a select congressional committee on the topic of early childhood development: "He has these wonderful rosy cheeks and this open face. He pretends he's holding a baby and rocking the baby. He starts talking about babies and the need for stimulation and relationships, and all the while he's rocking the imaginary baby."

Brazelton, best-selling author of *Touchpoints*, captured the interest and imagination of the panel, Rosewater says, from the most conservative to the most liberal. He got them thinking about their own upbringings. But one thing Brazelton could not claim at the time was that science would back up his experience and clinical findings about the cognitive and emotional development of infants and toddlers.

Brazelton's work was significant. But *From Neurons to Neighborhoods: The Science of Early Childhood Development* was "the seminal and transformative work," said Rosewater, because the science could not be denied.

"People don't believe clinical data in the same way that they believe neurological data," she said. "One of the things that made *Neurons* so smart was that (because) brain imaging and all of that technology had improved so dramatically, people could visualize what was actually happening in the growth and development of an infant's or a

toddler's brain and that visualization made things much less deniable."

The scientific research proved, for example, that there is such a thing as mental health for very young children, said Rosewater, who championed funding of the *Neurons* study early in its development. She says the report confirmed that babies are attentive, not passive, but that they become passive if there is no relationship. It also confirmed that early intervention works. So another strand of critical knowledge in *Neurons* that changed understanding in the field, Rosewater said, was "the interaction between social-emotional development and cognitive development."

That connection wasn't the only one that changed understanding in the field of child development. Several key pieces of the research reported in *From Neurons to Neighborhoods*



"*Neurons* shifted how we can talk about the impact of children's exposure to domestic violence."

Ann Rosewater is an independent Atlanta-based consultant to foundations, nonprofit organizations, and public agencies. She served as a deputy assistant secretary of human services and other high-level positions with the U.S. Department of Health and Human Services in the 1990s.

“made it imperative to look differently at both policy and practice.” Rosewater said.

She uses as an example the idea of “toxic stress.” *Neurons* showed that chronic stress on an infant or toddler—like that from such influences as neglect, abuse, extreme poverty or maternal depression—can lead to underdevelopment in the brain’s neurological pathways.

“The concept of toxic stress — that phrase itself — has been so compelling that it has changed and augmented the focus on trauma for young children, the impact of violence or abuse or neglect of young children, and what to do about it,” Rosewater said. “We don’t have holistic policy yet, but we do have movement. *Neurons* re-framed the thinking about the harmful effects of violence and stress on children who live in it.”

“We now know you can ameliorate stress for babies, and if you don’t ameliorate it, it becomes toxic,” Rosewater said. “That has helped us to say that we have to make sure we pay attention to the children who are exposed to violence in the home. We also need to recognize the critical importance of keeping together the nurturing parent and the child whenever it is possible and safe.”

In other words, *From Neurons to Neighborhoods* scientifically supported the arguments about domestic violence and other environmental stresses on babies and toddlers. It added to the knowledge from clinical practice, Rosewater said. And as a result of *Neurons*, “We are paying much more attention to mental health issues in programs for young children.”

One of the challenges for the team writing *From Neurons to Neighborhoods* was to capture science

and knowledge that had been developing over a number of years. And, Rosewater noted, that scientific knowledge is continuing to develop.

Rosewater, who has spent most of her 40-year career deeply involved with developing and promoting policies to make the lives of America’s children, youth, and families better, says that the *Neurons* report has informed her own professional writings since it was published in 2000. “In probably every article I have written in the past 10 years, I make reference to it,” she said.

A deputy assistant secretary in the U.S. Department of Health and Human Services when *Neurons* was proposed in the early 1990s, Rosewater was a key proponent in marshalling much-needed funding for the report. She recalled why she thought it was important:

“We had not adequately summarized and presented the science that existed, and to the extent that we were doing so, we weren’t applying it very well or understanding how to apply it very well.”

Rosewater says she knew that “this was not a fool’s journey. I had a lot of confidence in the people who wanted to do the work.” So she was willing to talk to other government officials and child development experts about it and push for the money.

“A lot of (the science) was relatively new, but not integrated information,” said Rosewater. “I don’t know whether there’s enough new science to amass again or whether we have to wait another 10 years so that another 20 years of science will have accumulated. But the question of new science is always an important one.”

For More Information

Copies of the report, *From Neurons to Neighborhoods: The Science of Early Childhood Development*, are available for sale from the National Academies Press at (888) 624-8373 or (202) 334-3313 (in the Washington, DC metropolitan area) or via the IOM website <http://www.iom.edu/neuronstoneighborhoods>. Full text of the report and a free pdf copy of the Summary are also available at <http://www.iom.edu/neuronstoneighborhoods>.

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