I AM HONORED to have been president of the Academic Pediatric Association (APA) this year. Some of you may remember a recent newsletter column I titled “How Can I keep From Singing?” I mentioned that I sing in the Gateway Men’s Chorus. In fact, I have been a member of one or another performing arts group almost continuously since I have been in elementary school. It seemed natural to me to use music as a metaphor for the work of the APA. Whatever genre of music you enjoy, great music has the ability to stir the soul, to inspire, and indeed to transform. Similarly, when we at the APA are at our best doing the work to improve the health and well-being of children, we have the power to inspire like a great musical performance. So I thought I would construct my remarks as a rhetorical symphony in 4 movements, each headed by a musical concept: rhythm, dissonance, polyphony, and harmony.

**RHYTHM**

There is a song in the musical Sweet Charity called “Rhythm of Life.” I want to take just a moment to remember some of the notable events that were part of the past year’s rhythm of life. Barack Obama won a second term in the American presidential election. The Affordable Care Act was upheld by the Supreme Court, and the Supreme Court also heard 2 cases related to marriage equality. Hurricane Sandy struck the mid-Atlantic seaboard, claiming more than 100 lives and interrupting electric power for more than 8 million people. The sequester was implemented in March, causing widespread budget cuts to medical research and programs benefiting child health. The city of Boston responded with heroism to the Boston Marathon bombing. It is with sadness that we remember three former presidents of the APA who died this year: Richard Olmsted, Robert Hoekelman, and George Commerci. Richard Olmsted became the first president of the APA in 1961; Bob Hoekelman became APA president in 1977; and George Commerci followed him in 1978. All had long and distinguished careers.

**DISSONANCE**

Dissonance is a combination of tones that suggests unrelied tension and requires resolution. Sometimes good music is dissonant. Maybe it is more challenging and hard to listen to, but it also gets our attention. Sometimes, for the sake of children, we find ourselves in a dissonant environment seeking resolution that improves child health.

You may have noticed that in my review of the year, something important was missing. There were 10 mass shootings since last May, including the massacre in Aurora, Colorado, in July, and the tragic shooting of 20 first-grade children and 6 of their teachers in Newtown, Connecticut, in December 2012. President Obama said that the day of the Newtown mass shooting was the worst day of his presidency. He also said, “This is our first task as a society, keeping our children safe. This is how we will be judged. And their voices should compel us to change.” His words were the inspiration for the title of my speech.

As an emergency pediatrician, I see children killed and injured much too often in my practice. As a proud member and president of the APA, I have been moved to seize this time in our history to talk about the epidemic of firearm injury and death in the United States, and to think with you about what it takes to make the changes that improve public health and make things safer for the children. I believe that a focus on the large and difficult problems confronting our children is consistent with the mission and vision of the APA. I want to make the case that firearm injury to children and youth in the United States is indeed a major American public health issue, worthy of the research needed to make significant improvements in health outcomes, and worthy of the advocacy for policies that follow from careful high-quality research.

Let’s take a closer look at this American epidemic. In the year 2010, there were more than 31,000 firearm deaths in the United States, or 86 people daily. A total of 62% were suicides, 36% were homicides, and 2% were unintentional.1 Regarding children, there are 20,600 annual firearm injuries and approximately 8 children die of gunfire daily in the United States, which means that since...
Newtown, at least 1120 children were shot to death. This is equivalent to 56 more Newmans. Because these often happen one at a time in homes or on the streets, they do not receive as much attention. Among children and youth aged 1 to 24 years, gun-related injuries cause twice as many deaths as cancer, 5 times as many as heart disease, and 20 times as many as infections.

As with so many health-related issues in the United States, there is also a disparity in gun-related deaths, particularly homicide. Figure 1 shows that firearm-related homicide deaths disproportionately affect black youth. Figure 2 shows that for male youth aged 15 to 24, the ratio of black homicide victims to white victims is about 7 to 1 and has been rising.

In the emergency department at St Louis Children’s Hospital, where I work, we see an average of 70 children shot by guns every year. By comparison, last year, we saw only 3 children with meningitis and 50 children with possible sepsis. Not a week goes by without our having to treat a child or youth injured by a firearm. Let me give you two examples. A 4-year-old boy found a handgun in a closet at home, placed the barrel into his mouth, and pulled the trigger, as he had often done to get a drink from his toy water pistol. A 3-year-old boy, the son of a policeman, killed himself with his father’s loaded pistol, which he found in a dresser drawer. Unintentional shootings like these account for about 700 deaths per year in the United States, 114 of them in children and youth. This means that one child dies from an unintentional shooting every three days. These injuries are preventable.

Are Americans more violent than other comparable societies? The Johns Hopkins School of Public Health held a symposium on reducing gun violence in America and suggested that the answer to this question is no. Our rates of car theft, burglary, robbery, sexual assault, aggravated assault, and youth fighting are similar to those of other high-income countries. What is different is that violent events in the United States are more likely to be fatal, and the data suggest that this is related to the relative availability of guns. Table 1 compares homicide, suicide, and unintentional firearm deaths in the United States to 25 other high-income countries. What this shows is that among children aged 5 to 14 years, gun homicides occur at a rate 13 times higher than the rate in other developed nations, and suicide is nearly 8 times higher. Unintentional firearm deaths were more than 10 times higher.

What do we know about gun ownership? It is estimated that 57 million Americans own more than 300 million firearms. Thirty-three percent of households are estimated to have firearms. The United States is number one in per capita gun ownership. Within the United States, there is also evidence that gun ownership is related to homicide and suicide. Homicide and suicide rates correlate with gun ownership rates even when controlling for many variables, such as poverty, urbanization, unemployment, alcohol consumption, and nonlethal violent crime. These associations are particularly striking when high firearm ownership states are compared to low ownership states. States with higher rates of household firearm ownership had higher rates of homicide and suicide for men, women, and children. Table 2 shows the data regarding children 5 to 14 years of age. More than a decade ago, Mark Schuster found that more than one-third of all households with children younger than 18 years have a firearm, and 25% of these have loaded weapons. More than 40% of gun-owning households with children store their guns unlocked. A number of studies have demonstrated that parents underestimate their children’s access to guns in the home.

However, data show that interventions can make a difference. For example, Grossman et al showed that four safe gun-storage practices significantly reduced the odds of suicide attempts and unintentional firearm shootings among children, and Barkin et al showed that pediatricians who counsel parents about safe storage can cause a significant increase in safe storage practices. Personalized firearm technology exists today. A German company has produced a pistol that can only be operated by its owner.

In my view, the importance of research on public health issues cannot be overstated. Some of the research I have referenced today is old because there have been congressionally imposed restrictions on firearms research. The
APA, guided by David Keller, presented testimony to the Senate Judiciary Committee in February 2013, in which the APA outlined 5 priorities for research: access to data; better understanding of the relation of firearms and suicide, especially among youth; better understanding of the best approaches to self-defense and home defense and the role that firearms play; interventions to reduce access to firearms or reduce the number of firearms in circulation; and counseling by pediatricians, with research aimed at evaluation of counseling strategies and outcomes.

There are also examples in my lifetime in which medical and epidemiological research has catalyzed major improvements in public health. Cigarette smoking, lead poisoning, and automotive safety come to mind. Figure 3 shows that since 1965, cigarette smoking in adults has fallen from 43% to approximately 20%, and that youth smoking rates, after rising in the 1990s, have also fallen to about 20%, in part due to US Food and Drug Administration regulations aimed at marketing to youth. The public environment, once filled with smoke, is now largely smoke-free.12 Lead levels in children represent another long-term success: it required the removal of lead from paint and gasoline and successive lowering of blood lead levels considered toxic.13 Finally, in automobile safety, regulations aimed at roads, drivers, and automobiles, including airbags and appropriate seating for children, have all made driving much safer today than it was half a century ago. Figure 4 shows a significant decline in fatalities adjusted for vehicle miles traveled.14 In fact, many predict that firearm deaths will soon supersede motor vehicle deaths nationally.

What can we do to keep children safer, recognizing that reduction of firearm injury in children and youth is a complex public health problem that will take time to improve? Even so, change can happen.

First, let me review what the APA has been doing. The APA, along with other organizations of the Federation of Pediatric Organizations, and guided by our Public Policy Committee, sent a letter to Vice President Joseph Biden in December urging sensible gun control, increased support for mental health, reduction in violent media exposure for children, and an end to the congressionally imposed restrictions on firearm injury research. On January 16, President Barack Obama issued 23 executive orders, which included lifting the research restrictions. He also called for legislative actions that were congruent with all the points we raised in our letter. The APA presented testimony to the Senate Judiciary Committee on February 12, 2013, calling for consideration of children in the deliberations on firearm control, and outlining the five research priorities I mentioned earlier.

In conjunction with the public policy committee, we have been following congressional debate and providing talking points for members who wish to write letters at appropriate times. The APA is creating a policy about firearm injury reduction in children. There was a special Saturday topic symposium on firearm injury added to this year’s PAS program. Some of the research I cited in this talk has been conducted by members of the APA. We heard the excellent presentation by Dr Fleegler at the 2013 APA Presidential Plenary Session relating firearm regulation by state with firearm fatalities. With restrictions lifted and a chance for new funding, I am hopeful there will be more of us who are able to contribute to the body of knowledge needed to reduce firearm injury.

The AAP updated its policy on firearm related injuries in the pediatric population last October.3 That policy made several significant recommendations for pediatricians:

1. Absence of firearms in homes and communities is the most effective prevention measure. As pediatricians, we can encourage parents to make this choice.

2. For families who choose to have guns in the household, we can counsel parents on safer storage practices, and, specifically, focus on the risks of suicide when there are youth in the home.

3. We can encourage development and use of personalized safety mechanisms and other engineering methods of limiting child access to guns, and work to bring firearms under the regulation of the consumer product safety commission.

### Table 1. Gun Deaths Among 5- to 14-Year-Olds: United States Versus 25 Other High-Income Populous Countries, Early 2003

<table>
<thead>
<tr>
<th>Event</th>
<th>Mortality Rate</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Homicides</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gun</td>
<td>13.2</td>
<td></td>
</tr>
<tr>
<td>Nongun</td>
<td>1.7</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3.4</td>
<td></td>
</tr>
<tr>
<td><strong>Suicides</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gun</td>
<td>7.8</td>
<td></td>
</tr>
<tr>
<td>Nongun</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1.7</td>
<td></td>
</tr>
<tr>
<td>Unintentional firearm deaths</td>
<td>10.3</td>
<td></td>
</tr>
</tbody>
</table>


### Table 2. Firearm-Related and Non-Firearm-Related Deaths for 5- to 14-Year-Olds

<table>
<thead>
<tr>
<th>Death</th>
<th>High-Gun States†</th>
<th>Low-Gun States‡</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suicide</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firearm</td>
<td>166</td>
<td>15</td>
<td>11.1</td>
</tr>
<tr>
<td>Nonfirearm</td>
<td>225</td>
<td>154</td>
<td>1.5</td>
</tr>
<tr>
<td>Total</td>
<td>391</td>
<td>169</td>
<td>2.3</td>
</tr>
<tr>
<td>Homicide</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firearm</td>
<td>259</td>
<td>100</td>
<td>2.6</td>
</tr>
<tr>
<td>Nonfirearm</td>
<td>212</td>
<td>169</td>
<td>1.3</td>
</tr>
<tr>
<td>Total</td>
<td>471</td>
<td>269</td>
<td>1.8</td>
</tr>
</tbody>
</table>


†Louisiana, Utah, Oklahoma, Iowa, Tennessee, Kentucky, Alabama, Mississippi, Idaho, North Dakota, West Virginia, Arkansas, Alaska, South Dakota, Montana, Wyoming.

‡Hawaii, New Jersey, Massachusetts, Rhode Island, Connecticut, New York.
Other advocacy opportunities suggested in the AAP policy include the following: increasing the list of restricted persons, universal background checks, greater oversight of gun dealers, a ban on sales of assault weapons to general public, and funding of firearm injury research.

Results of a recent survey conducted after the Newtown shooting and published in the New England Journal of Medicine show that these recommendations enjoy strong public opinion support. The sampling frame covered 97% of US households and included people who did not own guns as well as gun owners. Majorities of respondents supported 27 of 31 gun control policies. Public support was high for policies prohibiting certain persons from having guns, enhancing background checks, and instituting greater oversight of gun dealers. More than 65% of the general public also favored banning the sale of military-style semiautomatic weapons and large-capacity ammunition magazines.

Even though strong forces oppose sensible public health measures to regulate firearms and reduce firearm injuries, and despite the recent legislative setback in the US Senate, there are reasons for optimism:

- Successes in sensible firearm regulation in other countries, although not entirely importable to the United States, show us that it can be done.
- Several states, particularly Connecticut and Colorado, have enacted exemplary firearm regulatory statues.
- Successes in tobacco, lead, and automotive regulation suggest the importance of research and the understanding that it sometimes takes decades or more of incremental cumulative change to reverse an epidemic or reduce a public health hazard.
- Advocacy groups for sensible firearm regulations have emerged.
- Public opinion shows that a majority of Americans support many of the regulations endorsed by the Federation of Pediatric Organizations.

Former congressional representative Gabrielle Giffords, herself a shooting victim and a gun owner, spoke 80 riveting words in her recent testimony to Congress: “Speaking is difficult but I need to say something important. Violence is a big problem. Too many children are dying. Too many children. We must do something. It will

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Figure 4. Fatalities and fatality rate per 100M vehicle miles traveled (VMT) by year. 1949–1974: National Center for Health Statistics, HEW, and State Accident Summaries (adjusted to 30-day traffic deaths by NHTSA). FARS 1975–2009 (Final) 2010 Annual Report File (ARF); VMT from the Federal Highway Administration. Data from National Highway Traffic Safety Administration, Automotive fatalities and rates by year, 2012.
be hard, but the time is now. You must act. Be bold, be courageous. Americans are counting on you.”

POLYPHONY

Polyphony is the multiplicity of sounds or combining a number of independent harmonizing melodies. I think of this concept as the value of many voices or diversity. The APA celebrates diversity. It is one of our core values. We have several special interest groups that explore diversity issues in the pediatric community. A topic not yet represented in a special interest group of the APA is diversity of sexual orientation, and specifically issues associated with the well-being of children whose parents are gay or lesbian as well as the well-being of lesbian, gay, bisexual, and transgendered youth.

When I was growing up in the 1950s and 1960s, the idea that same-sex couples might marry legally was totally unimaginable. Now, half a century later, Rhode Island just became the 10th state (plus the District of Columbia) to recognize marriage equality. There are also 15 countries that have done so. (Since I originally delivered this speech, 6 other states have legalized same-sex marriage.) The American Academy of Pediatrics has just published a policy guided by lead authors Ben Siegel and Ellen Perrin. The policy supports marriage equality for all, including those who are of the same gender, adoption without regard to the sexual orientation of the parents, and foster care placement for eligible children to qualified adults without regard to their sexual orientation. There are likely almost 2 million children younger than 18 being raised by at least 1 gay or lesbian parent. The technical report that accompanied the policy reviewed the data on outcomes of children raised in households headed by lesbians or gay men. It concluded that these children are not disadvantaged in any significant respect relative to children of heterosexual parents.

I am particularly proud to be a pediatrician and grateful to my colleagues who wrote and endorsed this policy when it was published in March 2013. I am also proud that the APA sponsored a topic symposium proposed and organized by Ellen Perrin titled, “The Health and Well-Being of Children Whose Parents Are Gay or Lesbian.”

However, there are also important health issues and concerns about children who represent sexual minorities. In 2011, the Institute of Medicine published a report on the health of lesbian, gay, bisexual, and transgender people. Research on lesbian, gay, bisexual, and transgendered (LGBT) youth is relatively scarce, for reasons including barriers at institutional review board and community levels in surveying young people about their sexual orientation, and also the recently held beliefs that sexual identity and orientation do not emerge until late adolescence. Actually, several studies suggest that the average age of awareness of same-sex attraction is 9 or 10, and the average age of self-identification is between 16 and 17 years.

Although most LGBT youth have the resilience to negotiate the developmental, social, and health issues associated with sexual minority status and to develop as healthy adults, the limited data we have suggest that there are some notable risks along the way. For example, LGBT youth are at increased risk for suicidal ideation, attempted suicide, and depression. Risk factors include sexual minority status, homophobic victimization, and family rejection. Some evidence suggests that lesbian, gay, and bisexual youth have higher rates of eating disorders. There is also evidence that self-identified lesbian or bisexual young women may have elevated body mass indexes compared to heterosexual peers. Young men who have sex with men have disproportionately high rates of HIV infection.

LGBT youth experience elevated levels of harassment, victimization, and violence. The school environment can be a problem. Students report feeling unsafe at school, sometimes receive weak support by school staff, and may receive lower grades. Rates of substance use, including smoking and alcohol consumption, may be higher. LGBT youth are overrepresented among the population of homeless youth. Child abuse rates may be relatively higher.

In health services, LGBT youth may lack access to health care professionals who can provide appropriate care. Small studies suggest that many youth do not disclose their sexual orientation to their physicians. There is also discomfort among some physicians about addressing sexual orientation with adolescent patients. Research is needed in the domains of demographic and descriptive information, family and interpersonal relations, health services, mental health, physical health, sexual and reproductive health, and transgender-specific health care.

The AAP is in the process of forming a provisional section on lesbian, gay, bisexual, and transgendered issues, and I have agreed to join the founding membership. I believe it is also time for the APA to have some focused effort devoted to issues of LGBT youth and parents who are lesbian and gay, perhaps with special emphasis on research. My plan is to work together with the provisional section to explore ways in which the strengths of the APA can provide complementary support and accelerate advances in knowledge and health outcomes.

HARMONY

Harmony is defined as a combination of sounds considered pleasing to the ear. I believe that as members of the APA, we are in harmony about our love for all children, no matter who their parents are and no matter what their sex, race, ethnic origin, or gender identity. We are in harmony about our mission of improving the health and well-being of all children and adolescents. And we embrace our core values of optimal health for all children, focus on the whole child, scholarship, interdisciplinary collaboration, diversity, professional development, and partnership with children, families, and communities.

I believe that through the work we do every day in caring for children, research, education, and advocacy for those too young to have a voice in policy, we can make things better. We can imagine a day when the environments in
which our children learn and play will be as free of lethal gunfire as they now are of cigarette smoke, and we can imagine a day when children, no matter what makes them or their parents unique, will be celebrated for who they are and the diversity they bring. I chose to shine a light on two pressing issues that are particularly topical and important to me and my work. There are many domains in which APA members work to improve child health that I did not specifically mention today, but that makes them no less important. Whether it is firearm injury, child poverty, or better access to health services for all children, meaningful changes take time and are based on research and the persistence of talented and dedicated people.

Before I close, I wish to thank some talented and dedicated people in our midst.

To all the wonderful staff of the APA, and especially Marge Degnon for her 33 years of service; to the members of the APA board and the SIG and region chairs who volunteer so much time and effort on behalf of the APA and the children it serves; to all of you, members of the APA who do the remarkable work you do to keep children safe and well; to my colleagues in St Louis who have given me the time to serve as president of the APA; and finally to my husband and life partner of 25 years, David Lewis, whose love and support are everything.

Marion Wright Edelman said: “You really can change the world if you care enough.”

Thank you.

REFERENCES