

# A Model of Community Pediatrics: Improving Access to Safe Play Environments

The importance of play for the healthy development of children is clear. Safe and accessible playgrounds give children the opportunity to challenge themselves and develop physically, mentally, and socially.

In the article by Allen et al<sup>1</sup> in the current issue of *Pediatrics*, the authors assessed more than 450 playgrounds in Chicago to identify hazards and compare the number and safety of the playgrounds based on neighborhood and population characteristics. This study reveals promising results. Over the 3-year study period, safety scores increased significantly among the playgrounds surveyed. The authors attribute this improvement to the collaborative efforts of the study team and community partners.

An important finding of Allen et al<sup>1</sup> was the lack of adequate safety surfacing on many of the playgrounds they studied, especially on those that relied on wood chips for energy absorption. The authors found that among playgrounds utilizing wood chips for safety surfacing, up to 99% failed to meet minimum safety recommendations for chip depth.<sup>1</sup> The two determinants of energy transfer in a fall are (1) fall height and (2) the impact attenuating capacity of the surface. Adequate safety surfacing is critically important for the prevention of playground-related injuries. Given that 75% of playground injuries are due to falls, this is one of the most significant factors in determining the occurrence and severity of playground-related injuries.<sup>2</sup> Adequate surfacing can make the difference between a scrape or contusion and a fracture, concussion, or worse.

One can make the comparison between playground surfacing and vaccines. As with a vaccine, a child does not need to have an awareness of the mechanism of prevention, and the child does not need to perform any special action to benefit from the protection that has been put in place. Once the child has been immunized or the safety surfacing has been installed, the protection is there whenever the threat presents itself, be it in the form of a microbe or energy from a fall. However, as with vaccines, “booster shots” are required to maintain optimal protection on the playground. Playgrounds, especially those utilizing loose fill materials like wood chips, require maintenance. These maintenance requirements can be minimized through investment in a better vaccine, such as rubberized safety surfacing. Unitary rubberized surfacing requires a significant monetary investment at the outset, but is longer-lasting, requires less maintenance, and can improve playground accessibility for children with disabilities. Utilizing passive engineering approaches, like playground safety surfacing, is a strategy that has been used with great success in injury prevention, and public health in general, for many years.<sup>3</sup>

Sadly, but perhaps not surprisingly, Allen et al<sup>1</sup> found significant health disparity with regard to access to safe playgrounds. Neighborhoods

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with greater poverty had fewer playgrounds and more playgrounds that failed to achieve passing safety scores. Disparities were also found with regard to race/ethnicity, with African-American and Hispanic children more likely to live in neighborhoods with unsafe playgrounds or fewer playgrounds, respectively.<sup>1</sup> These findings are consistent with other research on this topic.<sup>4,5</sup> Like most areas of public health, the field of pediatric injury is not immune to disparity. Factors that may increase a child's risk of injury include poverty, living in a single-parent household, low maternal education, young maternal

age, and number of children living in the home younger than 16 years of age.<sup>6</sup> Although disparities have been found throughout many categories of pediatric injury, additional research is needed to identify effective strategies for eliminating this unjust burden.<sup>7</sup>

The article by Allen et al<sup>1</sup> demonstrates that the Chicago Playground Project is employing effective strategies to improve the safety of playgrounds and decrease disparities in the availability of safe playgrounds. This has the potential of not only promoting the safe and healthy development of individual children, but also the health of entire

communities. Other cities have also developed playgrounds and green space in low income neighborhoods as a means of promoting healthy outdoor activity, community pride, empowerment, and ultimately economic improvement. Allen et al<sup>1</sup> provide an important example of how important, and effective, it is for clinicians to step outside of their hospitals, clinics, and offices and become engaged in their communities by using the principles of public health. It is a reminder of the synergy that can occur when community partnerships are formed and the fields of clinical medicine and public health merge.

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