

must be considered when people create environments for child care. More research is needed to answer many important questions. Many hazards can be prevented or controlled, if recognized, and early childhood development can be enhanced through informed decisions made during the design and maintenance of CCCs. People from disciplines of public health, architecture, and interior design must work together to provide healthy and stimulating environments for our nation's children.

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## Developmentally Inappropriate Play Areas in Rural Day Care: Is It Safe to Play Outdoors?

Kim F. Townley, PhD\* and Robert H. McKnight, MPH, ScD†

Work-in-progress that identifies mismatches between children's developmental levels and the outdoor play areas of rural day-care settings was reported. Outdoor environmental hazards were posited to be more prevalent in rural areas due to less-stringent zoning, variations of lifestyle, undereducation, high unemployment, and suboptimal health and safety standards. These environmental hazards include electric fences, farm animals, agricultural chemicals, firearms, tools, manure pits, unfenced ponds, and machinery. Principles of child development and of epidemi-

ology were used to construct an outdoor injury hazard matrix. The Haddon Matrix was used as the basis of our matrix. Our matrix illustrated how children in rural settings might experience injuries different from those occurring in urban settings. Examples include entrapment, poisoning, falls, electrocution, burns, animal injuries, asphyxiation, and dismemberment. We believe that many risks of farm-based day care are unrecognized by persons who set standards. It remains unclear whether existing child-care standards are adequate in protecting children who receive care on family farms. We presented a checklist for evaluating sentinel hazards in outdoor play areas in rural settings. Methods to quantify the magnitude of these hazards in rural day care are under way.

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## IV. MEETING THE NEEDS OF CHILDREN

### The Potential Health Benefits of Child Day Care

Linda A. Randolph, MD, MPH

The child-care setting provides several opportunities to enhance the health of children. According to the World Health Organization (WHO), health comprises physical (which includes oral and nutritional) and socioemotional domains. Child-care programs can assist in obtaining child preventive and primary care services; monitor children's health status over time; promote healthy practices of children, parents, and staff; and provide additional nutritional support.

As more young children participate in some form of child day care, that setting becomes a place where children's health needs

can be readily identified and therapeutic or specialized interventions can be delivered. Such a supportive environment could be more conducive to carrying out such functions than many health-care settings. The child-care program can determine the extent of health resources in the community and the gaps that exist. A fragmented, underfunded primary health care system in this country means that staff members will face significant barriers in trying to help parents to obtain needed health services for children enrolled in day care. However, the child-care community can become a louder voice of advocacy for improving the health delivery system at the local level, particularly for the children they serve.

The child-care setting can also be a place where new approaches to promoting health and preventing disease are attempted. Child-care staff who are trained to work closely with parents can help them become more active participants in the

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