Jemez Pueblo: Built and Social-Cultural Environments and Health Within a Rural American Indian Community in the Southwest

Nina Wallerstein, DrPH, Bonnie M. Duran, DrPH, Jolene Aguilar, MPH, Lorenda Joe, MPH, Felipita Loretto, Anita Toya, Harriet Yepa-Waquie, MSW, Randy Padilla, and Kevin Shendo

Much has been written about built and social-economic environments and their effects on urban health.[1–7] A growing literature also proposes that community capacity and social capital[8–15] play a role in reducing health risks. Another promising area of study is how cultural identity informs symbolic meanings of place and land, which affect health determinants.[16,17] Rural populations, although they have received less study, present an opportunity for research because their social and cultural identities are largely based on land and place. In this brief, we present preliminary results of one such study in a tribal community, raising questions about the intersections of built and sociocultural environments and health.

The Pueblo of Jemez is situated in rural New Mexico. More than 90% of its nearly 3400 members speak the Towa language. The unemployment rate is 27%, and 30% of all heads of households are not high school graduates. Most of those who are employed work in tribal services or in nearby cities.

METHODS

In 1999, the University of New Mexico Masters of Public Health Program received a 3-year grant from the Centers for Disease Control and Prevention as part of a national study to identify cultural meanings of community capacity in ethnic minority communities. This study used participatory research[18] to uncover sociocultural and environmental factors that indicate capacity for improving health.

With approvals from tribal leadership, the University of New Mexico team developed a tribal advisory committee, which co-developed the instruments. Informants were identified by sectors: elders, youth, spiritual leaders, political leaders, health, environment, and education.[19] Thirty-seven people participated in 5 focus groups; 30 were interviewed. We used a modified grounded theory approach[19] and worked with the advisory committee to analyze qualitative data. Although the built environment was not the research focus, we found that issues of housing, land use, and cultural practice were interconnected with community health.

RESULTS

Several unique contextual characteristics underlie this tribal environment. First, the tribal government makes all decisions about development, so no contests exist between public, private, and civil sectors. Second, decisions about the built environment are dominated by traditional connections to the natural environment and culture. Third, although societal changes—such as the breakup of families and media influence—have affected the pueblo, they are countered by uniformly shared values of cultural practice, language use, and sense of community. "We're a community . . . everyone chips in . . . before you know it, you have a house full of people willing to help." "Our culture makes people who they are, a sense of belonging. . . . Traditions, language make it unique." Fourth, the pueblo's access to resources has been historically limited, but increased tribal sovereignty has enabled Jemez to take control of its health care and to pursue charter schools.

Table 1 presents 3 built environment issues raised at Jemez: housing, Red Rocks development, and program development. For tribal leadership, these issues raise competing pressures for cultural preservation, economic development, family needs, community priorities, and, ultimately, health.

Housing

Although everyone agrees that the pueblo needs more housing, the issues are extended- or single-family dwellings, tribal government control over family lands, and placement of new housing.

Although the consensus is that extended family living is culturally appropriate, there are health and privacy concerns. "A lot of adults and families living in one house . . . that causes a lot of stress." Overcrowding prompts families to want to build on family farmlands, which is discouraged by the tribal council because of water rights litigation. "If we can't build homes on our farmland, where else are we going to build?"

Some tribal members want new housing at the edge of the village: "People with tribal enterprises need space." Others fear loss of co-

TABLE 1—Competing Pressures in Built Environment

Built Environment	Competing Pressures
Housing	
Inadequate supply	New housing vs traditional land use
Land use decisions	Plaza village vs distant suburbs
Family changes	Intergenerational vs nuclear vs single-mother families
Red Rocks development	
Road bypass	Economic development vs cultural preservation
Convenience store	Healthy commerce vs fast food
Museum	Government controlled vs family tourism
Program development	
New youth and senior centers	Service recipient vs community participant
Health facility	Tribal vs outside control

hesiveness with building homes far from the village center. "I just hope we don't get into developments like you see in the cities, like apartments." "New homes separate the pueblo life."

Red Rocks Development

Outside the village is the beautiful Red Rocks area, which hosts a tourist museum, convenience store, and food booths. A planned road bypass around the village to Red Rocks is a strategy to maintain tribal community: "It's nice we don't get the intruders. . . . That's what pulls our people together because we try to keep our traditions alive." "I totally support the bypass, for people to survive for the next 1000 years." However, this planned development creates tension among families who sell arts and crafts from their homes.

Economic development with health planning also remains a challenge. The convenience store employs tribal members and brings in revenue, but it is too far from the pueblo to walk, and it offers processed, convenience foods. "It would be nice if we could buy fresh vegetables, fruits. . . . It's more like fast food, fat foods."

Program and Facilities Expansion

Jemez is not a gaming tribe; it relies on federal resources for much-needed programs. A significant contribution to the built environment has been new health, senior, and youth facilities. Although proud of the infrastructure growth, program staff are concerned about potential decline in community participation as more people relate to tribal government as service recipients. On the other hand, tribal members appreciate participating in health programs linked to their culture: "You always greet people on the [health] walks . . . people like that." "We have more prevention programs, [which] continue in our Indian way . . . elders teach our young."

DISCUSSION

Preliminary findings indicate that built, sociocultural, and natural environments are interconnected. By assessing health-related community capacities, this study raised questions about how built environments can maintain cultural integrity and still foster health. For Jemez, cultural maintenance may take priority over economic and infrastructure needs, which paradoxically both enhances and threatens health opportunities. The more explicit these paradoxes are in tribal decisionmaking, the more capacity the tribe may have to weigh contributions of culture, economics, and environment on people's health. These preliminary results point to the need to investigate material, sociocultural, and symbolic meanings of place as we continue to study built environments and health. ■

About the Authors

Nina Wallerstein, Bonnie M. Duran, Jolene Aguilar, and Lorenda Joe are with the University of New Mexico School of Medicine, Albuquerque. Felipita Loretto, Anita Toya, and Harriet Yepa-Waquie are with Department of Health and Human Services, Jemez Pueblo, NM. Randy Padilla is with Senior Citizens Center, Jemez Pueblo. Kevin Shendo is with Education Department, Jemez Pueblo.

Requests for reprints should be sent to Bonnie M. Duran, DrPH, University of New Mexico School of Medicine, Department of Family and Community Medicine, 2400 Tucker NE, #147, Albuquerque, NM 87131 (e-mail: bonduran@unm.edu).

This brief was accepted May 8, 2003.

Contributors

N. Wallerstein and B.M. Duran wrote the brief. All contributors assisted with the study design, data collection, and analysis.

Acknowledgments

Partial funding for this study comes from the CDC grant U48 CCU61 0818 07, the National Institute of Environmental Health Sciences grant P30 ES-012072, and grants 1R24MH58404, K01MH02018, and R25MH60288 from the National Institute of Mental Health. The views expressed are those of the authors and do not necessarily reflect those of the funding agencies. Thanks to Nancy Harvey, RN, BSN, MPH, Public Health Nurse; Colleen Whitehead, BSW, MMA, Director, Jemez Health and Human Services Department, Jemez Pueblo Health Board and Governors for their input to the research and review of the document.

Human Participant Protection

The University of New Mexico Health Science Center human research review committee approved this study. The Jemez Pueblo health board and tribal council approved the study and this publication.

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