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Collection and Utilization of Child Abuse Statistics in American Indian Communities

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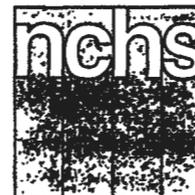
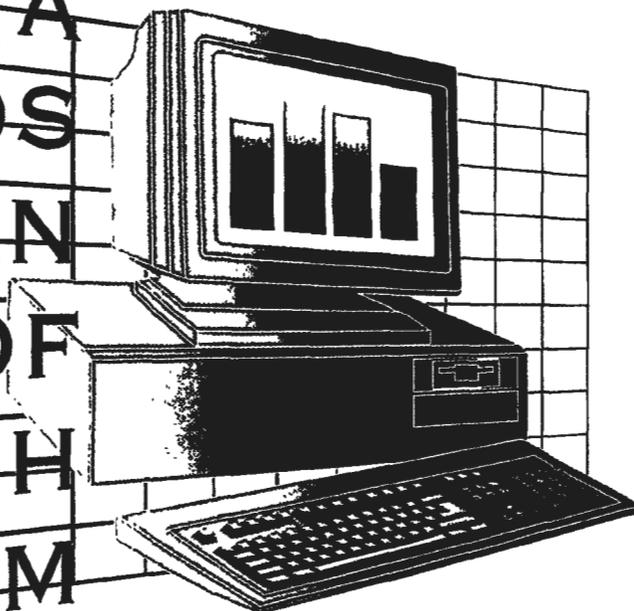
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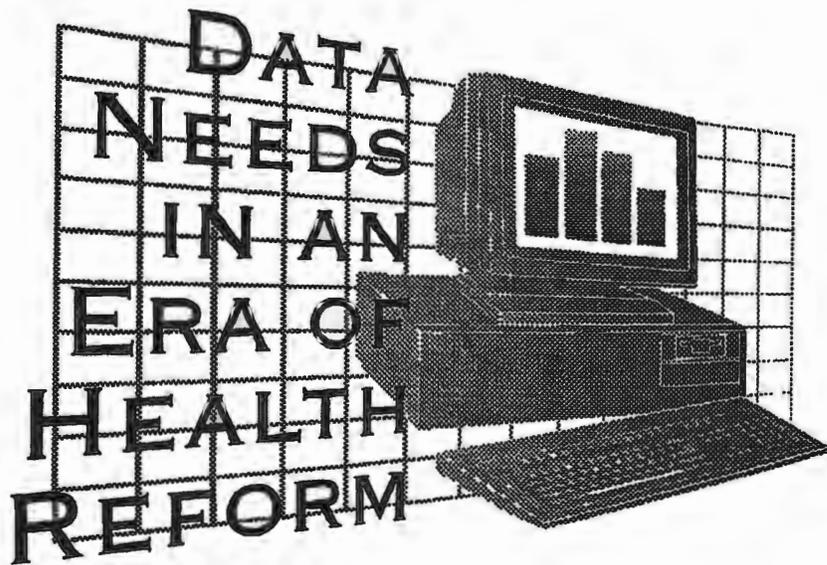
**25th
Public Health
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Vital and Health Statistics
45th Anniversary Symposium**

**July 17-19, 1995
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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
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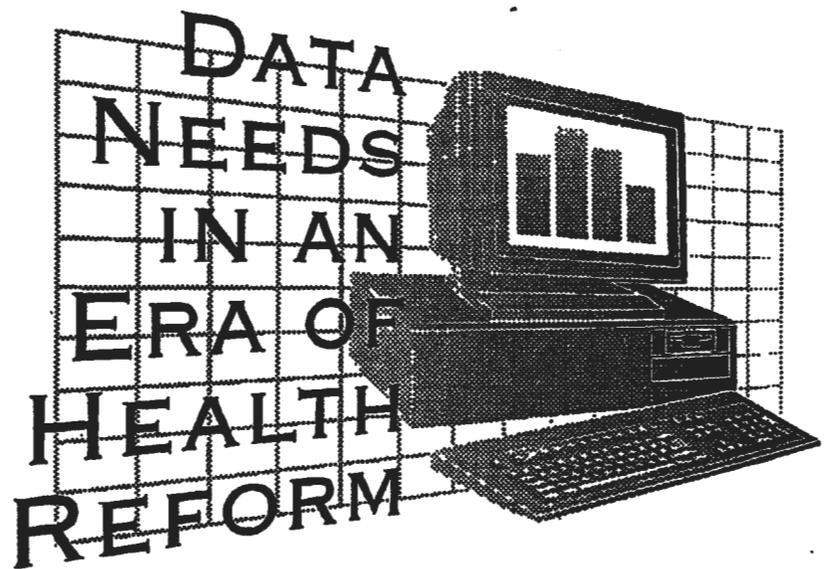
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COLLECTION AND UTILIZATION OF CHILD ABUSE STATISTICS IN AMERICAN INDIAN COMMUNITIES

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Public Health Research in Indian Communities

Public health research in American Indian communities involves many complex issues that may both help and hinder the development of an effective research methodology and the collection, analysis, and utilization of data. These issues include: 1) the unique strengths and diversity of Indian cultures; 2) the complicated relationships that exist between federal, state, and tribal agencies; 3) the vast distances between communities and services that exist in rural areas; 4) extremely limited human and financial resources; 5) overlapping and often conflicting legal and jurisdictional authorities; and 6) an array of social issues including poverty, substance abuse, modernization, and assimilation. Defining the parameters of any health issue requires a broad based understanding of the unique social, cultural, and political dynamics of Indian tribes and tribal communities.

Research and data collection must also take into account a tribe's status as a sovereign nation. The concept of sovereignty gives federally recognized tribes the right to exercise basic governmental powers. In addition, treaties, recent Indian legislation, and the US Trust responsibility mandate the Federal government to make provisions for basic needs such as health care, education, and housing. One result of this unique status is that, in any given tribal community, there may be a combination of tribal, federal, and state agencies providing services and collecting data. Each agency may have different roles, responsibilities, protocols for obtaining information, and levels of sophistication with regard to data management.

With few exceptions, the more than 500 Indian tribes and Alaskan Native villages in the US range in size from a few hundred to a few thousand people. While low population density does not preclude the existence of serious public health problems, it makes it difficult to document prevalence and incidence. In addition most, if not all, tribal groups are in some stage of epidemiological and demographic transition, reflected in part by the changing causes of morbidity and mortality among Indian people. This transitional status supports both the need for, and the opportunity for defining and addressing public health issues. For example, cross cultural studies have shown that societies in transition are especially susceptible to issues such as child abuse.

As federal budgets reduce and re-define the services available to Indian people, tribes are faced with the need to plan, develop, and fund their own prevention and intervention programs. The changing structure of the current health care system demands a new approach to addressing the unique needs of Indian people and the individual needs of tribal communities.

Child Abuse and Neglect

Child abuse is being increasingly recognized as a public health issue. This approach facilitates study of the history of the issue, insight into the complex bio-social processes at work, and the development of effective strategies for prevention and intervention. A public health approach also recognizes that the cultural, social, and political context of the community will determine what constitutes abuse; situations that excuse or mitigate abuse; appropriate responses that can be applied; and what the resources should be versus what is actually available. To fully comprehend and evaluate the issues that accompany

research on child abuse and neglect among Indian people, it is necessary to understand the interaction between health and social services, Indian law, tribal culture, and the political systems that are both stressed, and called upon, when the breakdown of Indian family relationships result in the maltreatment of children.

In tribal communities the agencies involved in responding to the victim, the perpetrator, and the families include tribal, state, and federal health care services, social services, law enforcement, courts, and schools. Most Indian communities also have a designated Child Protection Team. This multidisciplinary team of service providers is designed to monitor and follow-up reported incidents of child abuse and ensure that available services are provided and are not redundant. Even so, which agency has primary responsibility for reporting and investigation and who has jurisdiction is rarely agreed upon. In addition, each agency requires varying types of data and information and may have varying levels of sophistication with regard to human and technological resources. With the current and impending changes in health care and related services, in order to develop or re-define the existing service delivery system, tribes need comprehensive yet simple methods that will maximize the availability and the utility of local data.

The National IHS Child Abuse and Child Neglect Project

The Indian Health Service (IHS) is a federal agency that is part of the trust relationship between tribes and the US government. The IHS provides primary and preventive health care services to a majority of reservation based tribal populations. The IHS has also been the primary source of health research and statistics for tribes.

A recent national level project (Chino et al., 1993) to address the issues of child maltreatment in Indian communities was part of the IHS research component. There were three objectives of the national project: 1) to research the scope and the long term effects of child neglect, physical and sexual abuse on Indian children; 2) to study the role of the Indian Health Service in issues of child protection and child maltreatment; and 3) develop a model intervention program. What started as an administrative assessment of policy and procedure however, rapidly became a study of risk factors, causation, resource utilization, family and community dynamics, local politics and response systems, and the severe gaps that exist between the administrative levels and services levels of the health care system.

Part of the initial intent of the project was to evaluate existing data, determine prevalence and incidence rates, assess variability between tribes, and make comparisons with data from the general population. This information, for the most part, simply did not exist. When information or data were available they were often limited in scope (e.g., only cases of sexual abuse were counted) and rarely in a format amenable to analysis (e.g., only aggregate counts).

The national level project was successful in obtaining caseload information on over 2000 incidents of child maltreatment from 37 tribal communities across the country. Although the data were not population based or truly representative of any individual tribe, the data set provided the first national level identification of variables

of interest and baseline estimates their impact. The process itself was invaluable in: understanding the constraints that inhibit effective data collection in tribal communities; developing comprehensive but simple analytic techniques; and identifying the need for tribal research to focus on community planning.

Barriers to Effective Data Collection

Surveillance issues (e.g., identification and reporting) had a major impact on data collection and continue to be a problem for many tribes. Issues include denial, the reluctance to recognize abuse, and the inability to separate abuse from poverty or cultural practices. In addition, despite federal mandates for reporting, many people are reluctant to report abuse. Sensitive issues such as child abuse can stigmatize individuals and communities which severely constrains the collection of data and hinders tribal communities from developing an aggressive, systematic response.

Data collection in tribal agencies is currently guided by the needs of the funding agency, usually at the federal level. While this ensures at least some data is collected at the local level, the format usually reduces its utility for agency and community planning and analysis. Even when information is available usage is constrained by: 1) a lack of a systematic, computerized system for data management within and between agencies; 2) varying levels of sophistication and ability; 3) reliance on personal knowledge of individuals and informal networks of communication; and 4) outdated equipment.

These barriers can be overcome by recognizing the limitations of local agencies; identifying cultural constraints on data collection and interpretation; convincing each community of the utility of a public health perspective and the concomitant modification of current data collection methods; and increasing local control over the information. Indian researchers are now considered vital to the development of epidemiological research projects in Indian communities. Indian researchers can serve as cultural liaisons between professional and lay communities. This is particularly important when research involves marginal populations, issues that are highly associated with fear and stigmatization, and where study in a clinical setting is difficult or impossible.

Development of Research Methods for Small Tribal Populations

As the system of health care for Indian people changes under current federal re-organization the need for planning at the community level is increasingly apparent. Programs planned at the national and regional levels do not effectively address local needs and priorities. However, until very recently, the IHS has been the primary source of program planning, program development, and program funding.

In order to justify the expenditure of federal funds for program development, the IHS requires calculated morbidity and vital event rates. These rates are rarely calculated below a regional level because, for small geographic areas, the number of events are often quite small. (The general consensus is that in small areas the number of events may be affected by yearly fluctuations which are purely random and a given rate in any one year may be very different from the true rate.) Although a small number of events may be insufficient for determining rates the events are significant to the local community and, proportionally, may have an enormous impact on health of the community and the direction of program planning.

Tribal communities need information that is adequate for identifying the scope of local health issues,

sufficient for community feedback, and collected in a format that addresses not only multiple levels of need but the varying needs of different agencies. In addition, in small communities the process of obtaining and sharing information must avoid breaches of confidentiality on the individual level and avoid stigmatization on the community level.

The need for information goes beyond acquiring incidence and prevalence rates. If tribes are to be able to understand the scope of local issues and develop appropriate strategies for response they must be able to document not only the existence of a problem but contributing factors and related problems. This is best achieved by using an epidemiological approach to research and data collection.

Epidemiologic objectives, a natural result of a public health perspective, should set the requirements for study design and data analysis. Although statistical hypothesis testing is generally felt to be the preferred method for research, it is a mode of analysis that offers less insight into epidemiological data than alternative methods that emphasize estimation of interpretable measures. Compromises in study design or analysis cannot be defended in pursuit of a statistical goal or to use a statistical method that does not accomplish the study objectives. Communities need useable information that is relevant to local conditions. According to Rothman, 1986, the fundamental task is to quantify the occurrence of a public health issue, evaluate causal and sequelae hypotheses, and relate the occurrence to the community's social, cultural, and political context.

Analytical Issues

When rates are the issue numerators, denominators, confidence intervals, and statistical significance are key considerations. The confidence interval is the most common method used to assess the adequacy of an observed rate, as an estimation of its true value. The general rule for data sets is that rare events in small populations mean wide confidence intervals. The confidence interval is the most common method used to assess the adequacy of an observed rate as an estimation of its true value (D'Angelo, 1993). In general, a 95% confidence interval is defined as a 95% probability that the "true rate" is included in the interval. Since any rate based on fewer than 20 events in the numerator will have a 95% confidence interval about as wide as the rate itself, it is preferred not to calculate rates involving fewer than 20 events. The reality is that 20 events or less is common in small communities.

There are generally thought to be two options for increasing the numbers and thus narrowing the confidence interval: 1) combine several years of data; or 2) combine data from several smaller geographic areas into larger ones. The norm for the IHS is to combine three years of data at the Area (regional) level. This is sufficient to look for trends but not end up with misleading rates due to changing local conditions. The IHS doesn't report rates with small numbers because they are basically meaningless—as likely to be statistical noise as they are to be valid estimates. However an individual community finds its own numbers very useful. If these number can be presented in a simple but meaningful way, communities can not only begin to effectively address the problems but can also develop methods for future data collection and analysis.

There is also a third option—100% ascertainment, that is including every reported incident. With 100% ascertainment confidence intervals are not important and, whether the data are statistically significant or not is not the

point. What you have are actual numbers and a "true rate" that the community can understand and can use for planning purposes. This is much more important to tribes than statistical significance or statistical comparisons.

Although seemingly obvious for small areas, 100% ascertainment it is not always easily accomplished. With the involvement of multiple agencies, some degree of coordination and standardization of data collection is critical to increase precision and reduce random error. While the best way to increase precision is to increase the sample size, this is not realistic in small communities.

The alternative is to improve the design of the study to increase the efficiency with which information is obtained. With child abuse and neglect data, the local multidisciplinary child protection teams can facilitate this process. Because key response agencies are represented on the team, each can ensure that the needs of their agency are being met and that the data collection process is not an added burden to existing data collection. When planning is the focus, as opposed to calculating rates, the utility of 100% ascertainment, and the need for coordinated data collection, becomes apparent to tribal agencies.

The first step is to coordinate data collection between different agencies to ensure that all cases are included and that duplicates are removed. It may be necessary to simplify protocols so each agency, regardless of the sophistication of the data management system, can provide useful information. A data collection instrument specific to child abuse caseloads, and *Epi-info*, a statistical software program developed by the CDC, proved to be useful tools for some of the tribes.

It is also important to simplify the analysis and return a maximum amount of understandable information to each community as well as to the IHS area level. Bar graphs, and simplified analytic methods are easily

understood and interpreted by tribal service providers and program planners. The ability to identify local trends and compare information with other area tribes is essential. By using a simple system compatible with the local level of sophistication and available equipment tribal communities can have information far more valuable than complex statistical analyses.

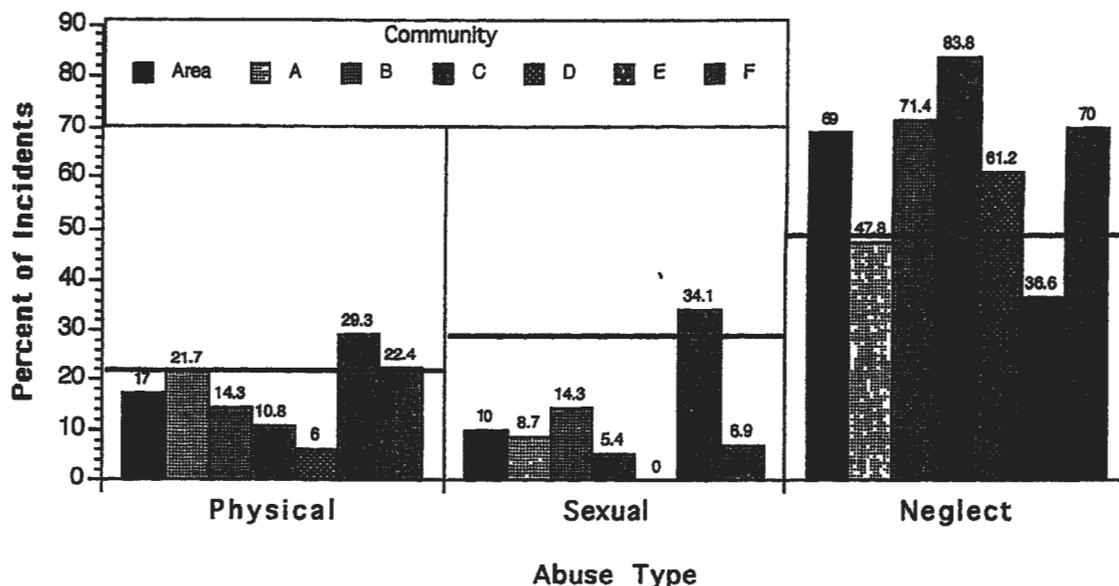
Results

A test of revised methods for data collection and small area analysis was conducted in one regional area and included 16 tribal communities. A data collection instrument was developed and information on all cases for a one year period were collected by local Child Protection Teams. The 16 communities reported a total of 379 incidents of child abuse and neglect. The number of cases reported ranged from a low of one case to a high of 79 cases. (Information from six of the communities, accounting for 287 incidents, are included in this report.)

"True" rates were reported back to each tribe along with descriptive information and a simple analysis. The information was also compared with an area aggregate and the national estimates from the IHS project. By presenting individual community and area data in a comparative graphic, local providers could assess the scope of local problems. The result was that the tribes finally had information that was useful for understanding local problems, comparing notes with other tribes, and an opportunity to assess the use of limited resources.

Although individual communities had the actual numbers to work with, comparing percentages between communities helped identify issues that may be unique to each community and issues that every tribe needed to address. In addition, in group presentations, percentages ensured the confidentiality of individual cases.

Figure 1. Percent of reported incidents by abuse type—comparison between six tribal communities, the regional area, and the national estimate



As indicated in figure 1, the type of abuse reported varied widely between communities. The black horizontal lines indicate the national level estimate; the first bar indicates the aggregate estimates for the area; and the other bars indicate the percent of the total number of incidents reported by each community by the type of abuse reported. The difference, whether statistically significant or not, helped individual communities assess issues such as reporting biases which might account for numbers that were lower than expected, and risk factors that might account for numbers that were higher than expected. For example, the national estimate of sexual abuse is 28% of all reported cases. The combined average for all communities in the area was 10%. One community reported no cases of sexual abuse while another community reported 34% of all their cases were identified as sexual abuse. Each community felt the need to address the issue differently and a strategy based on either 28% or 10% would not likely have met the needs of either.

Some of the variables showed few if any differences. This was also very useful information because it confirmed the pervasiveness of certain risk factors. For example, figure 2 indicates that, for Indian children, home is the most likely location where abuse will occur. This was very important information for the tribes to have. Although local services providers have long known that child abuse is a family issue, national attention has been primarily focused on the abuse of Indian children in government schools. This level of information helped tribal agencies re-direct attention towards the needs of families.

Figure 2. Percent of reported incidents occurring at the victim's home—community, area, and national (comparison).

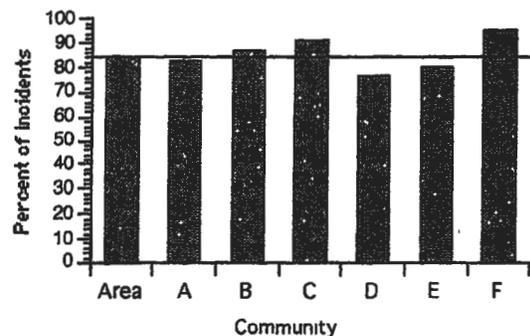
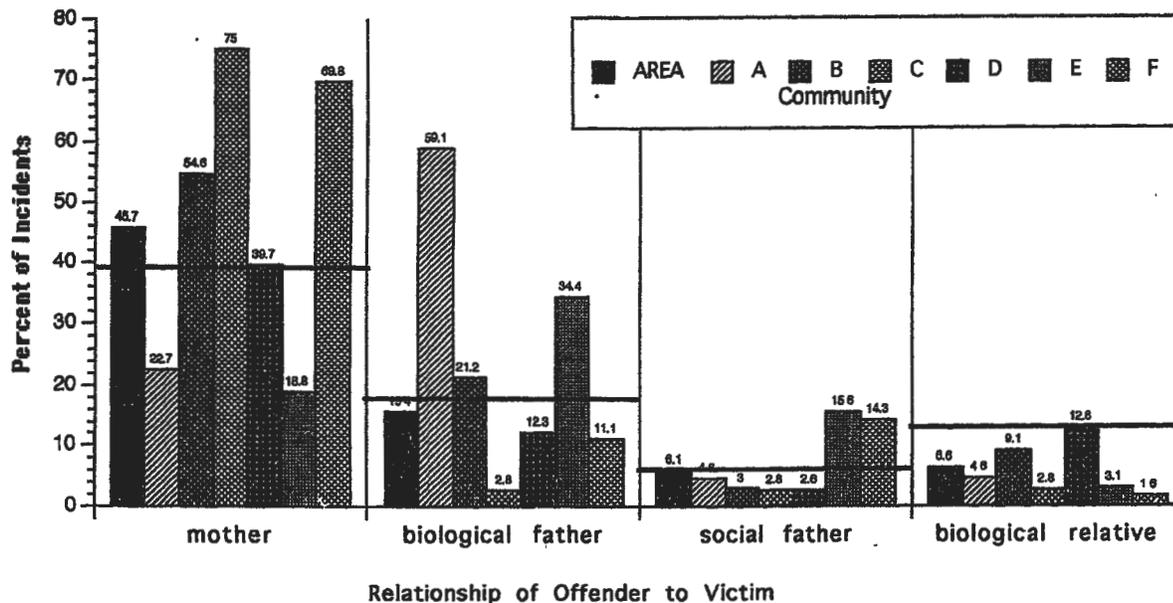


Figure 3 indicates the relationship between the victim and the offender for reported incidents. In general, parents and close biological relatives were identified as the primary perpetrators. Mothers were most often identified with incidents of neglect, fathers with incidents of physical abuse, and biological relatives with incidents of sexual abuse. Again this information was critical to focusing attention on the family and the extended family. Within each community, numbers that were higher than expected or lower than expected led to discussion of reporting issues, risk factors, and program planning.

Figure 3. Percent of reported incidents by victim-offender relationship—comparison of community, area, and national

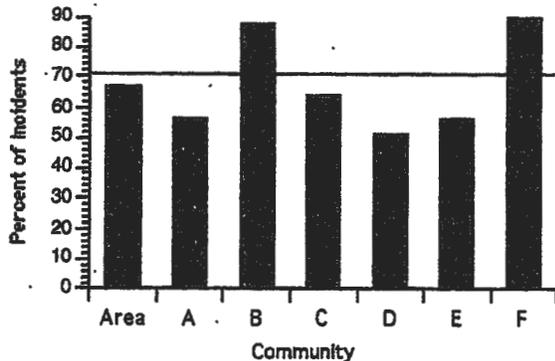


A major issue for Indian people is substance abuse. There was an assumption that all incidents of child abuse were the result of substance abuse. The data showed however, that while the correlation between perpetrator substance use and child abuse were higher for Indian people than for the general population, it was not a 100% correlation. In fact, the proportion of incidents involving substance abuse on the part of the perpetrator varied with the type of abuse, age, sex, and the relationship of the perpetrator to the victim.

As indicated in figure 4, while most of the communities were close to the national estimate (72%) and the area estimate (67%), the actual numbers of incidents involving substance abuse varied from a high of 89.9% to a low of 51%. Although substance abuse is a significant factor in incidents of child abuse in all the communities, some communities may need to more aggressively address the relationship between substance abuse and child abuse. This correlation also has indications for treatment and prevention.

The sum total of the data has had important implications for community planning and service provision at the local level. The information obtained through this process increased the tribes awareness of the issues, facilitated local level planning, justified requests for services from the IHS, and in combination, helped federal and state agencies guide planning and appropriations.

Figure 4. Percent of reported incidents involving substance abuse—community, area, and national comparison



Conclusion

The future of Indian health care is uncertain. The US trust responsibility to tribes and recent Indian legislation is in jeopardy. The Indian Health Service is facing regressive budgets and massive reorganization. Tribes need to be able to address public health issues in their communities. In order to accomplish this task, the current focus of data collection, methods of data analysis, and the of data need to be reconsidered.

In Indian communities the need for planning supersedes the need for statistical comparisons. When data on a large scale is available it can provide a "standard" by which individual communities can assess local problems but it can not be a substitute for local level information. Understanding similarities and differences between local and regional or national number help small communities prioritize issues and focus limited resources.

In order to obtain needed data, 100% ascertainment over a period of time can prove to be an effective means of evaluating the scope of local problems. While this may require coordination between agencies and redefining data collection protocols, the benefit of this approach for tribal communities includes community education and empowerment, better future planning, and a stronger focus on individual community needs.

References

Chino, Michelle, Ada Melton and Lynne Fullerton. 1992 Child Abuse and Neglect in American Indian /Alaska Native Communities and The Role of The Indian Health Service: Final Report DHHS—PHS Indian Health Service, Office of Planning, Evaluation, & Legislation. Rockville MD

D'Angelo, Anthony 1993 Statistical Note on Problems in Calculating Rates for a Small Number of Events. Indian Health Services Statistical Notes, Number 4. IHS Division of Program Statistics. Rockville, MD.

Rothman, Kenneth J. 1986 Modern Epidemiology. Little, Brown, and Company. Boston. 358 pages.

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For more information about these projects please contact the author; the National Indian Justice Center, Petaluma, California; or the Indian Health Service, Office of Policy Evaluation & Legislation, Rockville, Maryland.

