PROJECT MUSE®

Culturally Appropriate Evaluation of Tribally Based Suicide Prevention Programs

A Review of Current Approaches

Puneet Chawla Sahota and Sarah Kastelic

Suicide is a major health challenge in American Indian/Alaska Native (AI/AN) communities, particularly among youth. In 2004, suicide was the second leading cause of death for AI/ANs of all age groups, and the rate was higher than that for the general population. Among 10–14 year olds, 13.5 percent of deaths were from suicide, which is nearly twice the national rate of 7.2 percent.[1] Rates of suicide attempt are highest for AI/AN young women, while young men are the most likely to complete suicide. In 2004, among 15–19 year old AI/AN males, 32.2 percent of deaths were from suicide, which was 2.5 times the rate for males of all races in this age range (12.6 percent).[2] Many factors contribute to the high prevalence of suicide in AI/AN communities, including mental illness, substance abuse, feelings of hopelessness or isolation, impulsive behavior, and a history of violence, substance abuse, or mental illness in their families. AI/ANs as a group also have specific risk factors for suicide, including historical trauma, such as boarding school experiences, high rates of poverty, unemployment, and geographic isolation.[3] To assist tribes in preventing youth suicide, the Substance Abuse and Mental Health Services Administration (SAMHSA) within the U.S. Department of Health and Human Services (DHHS) published a detailed resource guide in 2010.[4] The guide is titled *To Live to See the Great Day That Dawns: Preventing Suicide by American Indian and Alaska Native Youth and Young Adults,* and provides a comprehensive review of research studies and programs related

to suicide prevention in AI/AN communities. For a good overview of the current state of suicide prevention efforts in Indian Country, we recommend consulting this resource guide.

Rates of suicide and contextual factors underlying suicide risk are different in each AI/AN community. For this reason, many tribes have developed their own strategies and programs for suicide prevention. This essay reviews current approaches for evaluating tribally based suicide prevention efforts in AI/AN communities and highlights particularly promising evaluation strategies. By "tribally based," we mean efforts that are tailored to the local context of individual tribes and Native communities. In some cases, communities might design their own suicide prevention programs (often based on their traditional spiritual/cultural beliefs and healing practices), while other communities adapt existing tools developed for the mainstream U.S. population. This essay aims to review the spectrum of approaches being used in the evaluation of tribally based suicide prevention programs, and to make recommendations about how tribal communities, health care providers, and researchers might be better supported in evaluating locally tailored efforts to prevent suicide. As we describe in the next section, our goal was not to capture an exhaustive list of strategies being used to evaluate tribally based suicide prevention programs. Rather, we reviewed existing literature and consulted a select group of key informants in order to broadly describe the landscape—the contours and gaps in these evaluation strategies—at a level of detail necessary to identify future research needs and policy change recommendations for a tribal leader and program staff audience.

Below, we first describe the process of developing the essay and our research methods. The sections that follow highlight key areas that emerged from our literature review and consultation with key informants. We first examine what constitutes "evidence" of program efficacy and ways to broaden the definition to be more inclusive of tribal programs. We then present specific strategies and approaches currently being used to evaluate tribally based suicide prevention programs. Finally, based on our literature review and comments from key informants, we offer policy-change recommendations for facilitating effective evaluation of tribal suicide prevention programs. We hope that these recommendations will assist tribal, federal, and state policymakers in better supporting tribally based suicide prevention programs.

ESSAY DEVELOPMENT AND RESEARCH METHODS

We developed this essay in collaboration with all the individuals and organizations that we consulted about tribally based suicide prevention programs. For a list of the organizations and interviewees who were interviewed or consulted by e-mail, please see Table 1 below. This essay

was originally intended to be a white paper for tribal leaders, not an academic research paper. Our initial goal was to review existing academic literature on suicide prevention and then make recommendations about best practices and policies specifically for tribal governments. However, the initial literature review and conversations with experts in the field

Table 1.

Key informants

Organization	*Region served*	*Key informants*
Alaska Native Tribal Health Consortium	Alaska	Kyla Hagan, Barbara Franks, Jessica Hagan
Confederated Tribes of Warm Springs Oregon Reservation	Oregon tribes	Caroline Cruz
Macro International Inc.	Garrett Lee Smith, grantees across the nation	Anupa Fabian
National Indian Child Welfare Association	Tribes across the nation	Terry Cross (via e-mail)
Native PRIDE	Tribes across the nation	Clayton Small
Planting Seeds of Hope, Montana–Wyoming Tribal Leaders Council	Montana and Wyoming	Don Wetzel
Project Trust Partnership; Coalition for Healthy and Resilient Youth in New Mexico	New Mexico tribes	Kimberly Ross-Toledo
Shakopee Mdwekanton Sioux Community	Minnesota	Antony Stately
Suicide Prevention Resource Center	Tribes across the nation	Gerry RainingBird, Elly Stout, Petrice Post
United American Indian Involvement Inc.	Los Angeles	Monique Smith

revealed that many successful tribal suicide prevention programs were not included in published academic articles, and that there was a need for publications about culturally appropriate evaluation strategies for these programs. For this reason, we sought to review the landscape of tribally based suicide prevention programs and current approaches to evaluating those programs across Indian Country. We conducted this broad review by reading published academic literature and "gray" literature (i.e., policy reports, white papers, program brochures and Web sites) as well as interviewing and corresponding with key informants working in the field of tribal suicide prevention.

In the process of reflecting on key informants' comments, we felt that there was a great deal of important information they shared that was not already available in the academic literature. We also felt that this information would be useful to a broad audience that would include not only tribal leaders, but also researchers, mental health care providers, policymakers, community advocates, and other interested stakeholders. For this reason, we then decided to submit our essay for publication in an academic journal. At that point in the work, we wrote to the key informants and shared with them this intention. One key informant asked not to be named or quoted in the study due to her organization's policy on publishing. All other key informants reviewed and approved their quotations, as noted below. Because our original goal was simply to conduct a literature review, we did not seek approval from an Institutional Review Board for this study. Thus this essay is a review paper that discusses specific strategies for the evaluation of suicide prevention programs documented in the literature and shared with us by key informants working in the field.

Our research procedure was as follows: First, we reviewed the published academic literature and gray literature on tribal suicide prevention. We consulted some authors of gray literature pieces by e-mail for clarification about their projects, and provided them with the opportunity to review and edit sections of this essay that we wrote about their work. Second, we developed a set of general questions for seeking input about suicide prevention in Indian Country.[5] We then distributed this call for comments broadly to e-mail listservs of diverse stakeholders, including tribal leaders, researchers, mental health professionals, and federal agency staff working with tribal communities. We also solicited feedback at meetings of two advisory councils of diverse tribal leaders: the AI/AN Health Research Advisory Council to DHHS, and the Suicide Prevention Task Force of the National Congress of American Indians. In addition, input was sought from the Indian Health Service (IHS) Suicide Prevention Committee. Finally, we sought feedback from specific types of stakeholders that were not represented in the initial response to the call for comments (e.g., an urban Indian community, IHS behavioral health staff). We then followed up with each

of the commenters who provided detailed feedback, and requested telephone interviews and complementary written materials (e.g., brochures, PowerPoint presentations, news articles about their programs). We asked key informants' permission to interview them by telephone and to take notes on a laptop during the interviews. Each key informant was provided with the option to be identified or remain anonymous in any resulting writings.

Our interview procedure was based on the "responsive interviewing" method developed by Herbert and Irene Rubin.[6] In responsive interviewing, the interviewee is treated as a "conversational partner"[7] with unique experiences, and so new interview questions are written for each interviewee. Following this principle, specific interview questions were formulated for the interviewees based on early correspondence with them and the suicide prevention programs with which they worked. Questions that were commonly asked included the following:

1. Could you please describe your suicide prevention program?
2. What lessons have you learned about successful approaches to suicide prevention?
3. Do you have any data about the efficacy of your program?
4. What do you think is the best way to evaluate suicide prevention programs in tribal communities?
5. What policy and practice recommendations do you have related to suicide prevention in Indian Country?

In considering Rubin and Rubin's concept of a conversational partner, we concluded that the relationship between the interviewer and interviewee should be one of trust and reciprocity. We believe that the interviewer and interviewee are equal parties who cocreate the interview. For this reason, we felt that interviewees should be able to review and edit our interpretations of their perspectives. Rubin and Rubin also suggest that interviewees be provided with the opportunity to edit their quotes or to review a researcher's writings at an early stage.[8] They argue that interviewee review helps to ensure the accuracy and thoroughness of research reports. This has been our experience as well. We view interviewees' feedback and editing as a way of validating our research results because the interviewees are experts on the programs with which they work. It is our impression that using the responsive interviewing method increased our credibility as a research organization in Indian Country.

During each interview, Puneet Sahota took detailed notes on a laptop while the key informants talked. Those notes were then coded for themes. According to Margaret LeCompte and Jean Schensul, coding

is defined as follows: "At the most general level, coding simply means organizing data in terms of a framework that [researchers] can use to support the results and conclusions they reach at the end of their study. At a more specific level, coding can mean actually reading through interviews . . . and assigning to sentences or paragraphs of text . . . codes representing concepts, categories, or themes."[9] In this project, both interview notes and correspondence with key informants were coded. Specific quotes from key informants were then grouped together under common themes that emerged in the coding process. Those themes were used to structure this essay. Interestingly, we did not receive any contradictory comments or perspectives from the key informants. All themes and perspectives related to evaluation of tribal suicide prevention programs that emerged from the literature review and interviews are included in this paper. Themes related to general policy and practice recommendations for supporting tribally based suicide prevention programs are described in a complementary essay (which is currently under review for publication).

All key informants (both those who were interviewed and individuals consulted by e-mail) were sent the first draft of this essay, with sections highlighted that were taken from their comments or program materials. They were offered the opportunity to review and edit their quotes and any text about their programs. This type of key informant review was important because written program materials may not always be consistent with actual program implementation. We had follow-up phone conversations and e-mail exchanges with key informants when necessary to negotiate revised text. Quotes from the key informants are interspersed with information from the literature review throughout the sections below. Key informants' quotes are also referenced in the notes.

The process used in the development of this essay reflects broader values about Indigenous knowledge and reciprocity in research. The organizations where we work seek to support AI/AN communities in developing a proactive, data-driven policy agenda, as well as to support and conduct tribally driven policy research. As such, we hold that Indigenous knowledge and approaches to research are equally valuable as academic or scientific research studies. Because we respect and value the knowledge of AI/AN people, we believe our interviewees should be able to influence how their knowledge is portrayed in our writings. We also have found that key informants are more comfortable sharing their knowledge when they are assured they will be able to review early publication drafts. As a result, the information we are able to obtain is more accurate and validated by the informant review process. The process of discussing our initial writings with key informants sometimes results in clarification of their thoughts and new insights, for both them and us. During the review of previous essays, our

key informants have commented that they gained new perspectives on their own work by reading and reflecting on our portrayals of it. Exchanges with our key informants have also helped us build ongoing, trusting relationships with them that have sometimes led to other collaborations beyond our essays.

All individuals contacted agreed to be interviewed or to share comments by e-mail, and many of them shared written materials with us pertaining to their programs. For a list of the key informants and their organizational affiliations, see Table 1. Fourteen informants' comments were included in this essay. Twenty key informants were consulted in interviews or by e-mail for our project, but not all informants' comments were pertinent to this particular endeavor. Other informants' comments are included in a complementary essay (under review for publication), which is about policy and practice recommendations for supporting tribally based prevention programs. Given the relatively small number of key informants, our results are not quantifiable or generalizable throughout Indian Country. Rather, we present a snapshot of some approaches being used to evaluate tribally based suicide prevention programs. Our review of program evaluation strategies is not exhaustive and we did not attempt to include all possible strategies in this essay.

BUILDING EVIDENCE FOR TRIBALLY BASED SUICIDE PREVENTION PROGRAMS

Tribally based suicide prevention programs are effective particularly because they are developed or tailored to the local needs of a community. Given the diverse cultures of tribal nations, as well as the differing contributors to suicide in various communities, suicide prevention programs are likely to be most effective when they address local contexts. Evaluation of these local programs is important for obtaining funding to support them, as well as to help establish their efficacy. Data collection can also help tribal citizens and staff to improve local suicide prevention programs. Finally, evaluation of programs may yield insight into which specific programs or approaches might be generalized as effective across Indian Country. The program evaluation strategies described in this essay can be used to lay a foundation for larger-scale studies that test hypotheses and draw generalizable conclusions about the effectiveness of specific suicide prevention programs or approaches.

Evaluating tribally based suicide prevention programs can be a challenge. Finding ways to evaluate these programs is important because funding is closely tied to data and outcomes. Our key informants frequently raised this issue spontaneously, expressing great concern about funding opportunities that require communities to demonstrate an "evidence base" for the suicide prevention program they are using.

Communities often lack external funding to develop suicide prevention programs, so they must invest their own resources to do so. Given that programs themselves are underfunded, communities are hard-pressed to find additional resources for program evaluation. However, these communities are often required to show data on program efficacy in order to obtain funding to support those programs. Individual tribes may also lack the sample size or other quantitative data requested by funders. Tribes using traditional spiritual/cultural ceremonies to prevent suicide may also be hesitant to evaluate these, since doing so might require documentation and sharing of information about sacred ceremonies.[10] Finally, tribes may not have the human resources or technical skills to develop an effective evaluation. For more information on the basics of program evaluation, see key textbooks by David Royse, Bruce Thyer, and Deborah Padgett,[11] and Earl R. Babbie.[12]

WHAT COUNTS AS "EVIDENCE"?

Expanding the definition of scientific "evidence" may help to make evaluation more feasible and culturally specific for tribal communities. When funders first began to place more emphasis on evaluation, the term "evidence-based practice" became more common in the requirements delineated in grant announcements and regulations.[13] The push for evidence-based practice was broad across disciplines, including medicine, psychology, and behavioral health.[14] The Institute of Medicine (IOM) defines evidence-based practice as "the integration of best research evidence with clinical expertise and patient values."[15] In the field of psychology, patient culture is also an important consideration when applying research findings to individual patient care. The IOM definition was modified by the American Psychological Association (APA), which adopted the following definition of evidence-based practice in psychology: "the integration of the best available research with clinical expertise in the context of patient characteristics, culture, and preferences."[16] Previous grants provided by SAMHSA for suicide prevention and other programs in AI/AN communities have asked that grantees use evidence-based programs.[17]

SAMHSA maintains a database of programs for the prevention and treatment of mental health issues and substance abuse. This searchable archive, the National Registry of Evidence-Based Programs and Practices (NREPP), includes interventions that are deemed "evidence-based" after a rigorous review process.[18] Submitted programs are rated on a numerical scale in two main areas: quality of research, and readiness for dissemination. More information about review criteria is available on the NREPP website.[19] This database includes only one suicide prevention program considered evidence-based for American Indian/Alaska Native youth: the American Indian Life Skills Curriculum. This

curriculum was created by Dr. Teresa LaFromboise, professor of education at Stanford University, in collaboration with the Zuni Pueblo and Cherokee Nation of Oklahoma.[20] The curriculum teaches social and life skills, gives students knowledge about suicide, and teaches them "specific methods to help a peer turn away from suicidal thinking and seek help from an appropriate help-giver."[21] Submitting a locally developed program for NREPP review is a tribal decision, and increasingly, inclusion in NREPP is becoming important for funding. However, many tribes lack the resources to conduct scientific evaluations of their programs, and the current NREPP criteria for quantitative data may preclude the inclusion of some tribally developed programs in the database.[22]

The Suicide Prevention Resource Center (SPRC) and the American Foundation for Suicide Prevention (AFSP) have also developed a national registry of suicide prevention programs.[23] The SPRC/AFSP Best Practices Registry for Suicide Prevention (BPR) includes the evidence-based programs listed in NREPP, and offers an additional section listing other suicide prevention programs and practices that have been reviewed for accuracy and safety of content.[24] This last section of the BPR, which does not require evaluation data, has been a way for various suicide prevention programs across the country to share new and promising approaches, including the Sources of Strength program, which was developed in tribal settings.[25] SPRC staff commented that AI/AN communities are invited to submit their suicide prevention programs and practices to their registry, and they hope it can become a useful resource for sharing information about tribal approaches to suicide prevention.[26]

What counts as "evidence" is of critical importance for specific tribally developed programs to be accepted as clinically useful and to be supported by funding agencies. The APA Presidential Task Force on evidence-based practice writes, "Evidence derived from clinically relevant research on psychological practices should be based on systematic reviews, reasonable effect sizes, statistical and clinical significance, and a body of supporting evidence. The validity of conclusions from research on interventions is based on a general progression from clinical observation through systematic reviews of randomized clinical trials."[27] This hierarchy of forms of evidence, in which randomized clinical trials are the gold standard, may be difficult for many AI/AN communities to achieve. The large sample sizes needed for "reasonable effect sizes" or "statistical significance" are not available in many AI/AN community suicide prevention programs. Randomized clinical trials may be unappealing to many communities, particularly with an issue as sensitive as suicide prevention, because one group of community members would not be provided the intervention under study.[28] In addition, Lawrence Green argues that randomized clinical trials do

not accurately represent the circumstances of everyday life precisely because they seek to remove contextual variables using "controls."[29] He calls for an approach using "systems science," which would seek to take into account all the complicated variables that affect real-life health care practice. This approach, "practice-based evidence," would inductively develop evidence based on routine health care practices used on the ground, rather than deductively developing hypotheses and testing them in clinical trials.[30]

Organizations serving AI/AN communities have also called for practice-based evidence, which uses real-life practice as a basis for building evidence, as an alternative to the evidence-based practice paradigm. In Oregon, AI/AN health care providers and communities became concerned when legislation was passed in 2003 requiring that crime prevention and some mental health programs be evidence-based in order to receive state funding.[31] Reflecting these tribal concerns, the National Indian Child Welfare Association (NICWA) attempted to shift the focus from evidence-based practice to practice-based evidence. NICWA is conducting a project titled "Practice-Based Evidence (PBE): Building Effectiveness from the Ground Up," in partnership with the Native American Youth and Family Center (NAYA) and the Portland State University Research and Training Center on Family Support and Children's Mental Health. The study partners write, "The goal of the PBE project is to identify a framework and set of methods for studying the effectiveness of culturally specific services provided to urban AI/AN youth."[32]

In response to the legislative mandate for evidence-based practice, the Oregon Indian Council on Addiction took a proactive stance and decided that a position paper about tribal concerns with evidence-based practice should be drafted.[33] Caroline Cruz (health and human services general manager at the Confederated Tribes of Warm Springs Oregon Reservation) and Dr. John Spence (Northwest Indian Training Associates) reviewed literature on establishing "best practices" in AI/AN communities and collected data on tribal healing practices.[34] In their essay, they recommended that the state of Oregon allow tribes to design their own research/evaluation tools and classify tribal programs as "culturally validated and culturally replicated." Taking these steps would help tribes to build practice-based evidence for their own programs. The Oregon Addictions and Mental Health Division (AMH) responded to tribal concerns in a brief position paper that stated, "AMH does not believe that an evidence-based practice from the AMH list should be assumed to be better than a culturally validated practice unless the assumption is supported by scientific evidence."[35] AMH agreed to collaborate with Native stakeholders to define an expanded framework for evidence-based practices that could be applied to tribes.

As a result, a panel of experts on tribally based practices and cul-

turally appropriate evaluation methods was convened to create a separate review and documentation process for approving tribal practices as evidence-based. Ms. Cruz and Dr. Spence serve as cochairs of the tribal best practices panel, which developed criteria that were more applicable to AI/AN communities for each of the domains the state had defined for evidence-based programs.[36] For example, the state's standard of "transparency" involved questions such as, "Who reviews the evidence? Is the research understandable and fully described so it can be replicated by others?" The panel's definition of transparency from a Native perspective was that a particular tribal practice had "longevity in tribal history" that was either documented or mentioned in oral tradition. They defined "replication" in a Native context as "cultural replication," meaning that programs were passed down through generations. If an approach is accepted by elders and has been used for a long time, then it has been culturally replicated within the community. It may be difficult to replicate programs across AI/AN communities because each tribe is different in its culture and history. The panel developed a form with its criteria for evaluating tribal programs, which is available on the Oregon AMH Web site.[37] Programs that are reviewed and approved by the panel as meeting its tribal evidence-based practice criteria are then accepted by the state as fulfilling the legislative criteria for funding. The Oregon example illustrates the potential for tribes to define their own standards of what counts as evidence, and shows that productive collaboration with states and other funders of mental health programs is possible.

AI/AN communities in other regions have also expressed concerns about evidence-based practice. Project TRUST in New Mexico has advocated for increased emphasis on practice-based evidence and recognition of "the importance of traditional cultural teachings and healing practices."[38] Project TRUST is a partnership including behavioral health providers, community members, community organizers, university faculty and staff, and organizations. It is aimed at improving behavioral health services for Native youth in New Mexico. In its recent report, the partnership provides an incisive critique of evidence-based practice: "It is also important to note that promotion and implementation of evidence-based practices is another form of institutional racism because almost none have been developed with Native communities. This reality is clearly perceived by many Native American providers and community members, but is not often recognized by non-Native providers, researchers, funding sources, and policy makers. Furthermore, the practices developed by Native American providers that are often deemed non–'evidence-based' are often not funded by important policy makers."[39] Requiring AI/AN communities to use only programs that have been established as evidence-based is problematic because there is only one such suicide prevention program specific to

AI/AN communities (American Indian Life Skills). Mandating that AI/AN communities use evidence-based practices developed for other ethnic groups is an extension of historical forced assimilation policies. The U.S. government historically attempted to eliminate the unique languages and cultures of AI/AN peoples and assimilate them into the mainstream American population.[40] Today's Native communities should not be required to use interventions that may be ineffective for them just because those programs have been deemed evidence-based in other populations.

Further, if AI/AN communities do attempt to adapt mainstream evidence-based interventions to make them more specific to local contexts and culture, they may not produce the same results as they do for other populations. Kimberly Ross-Toledo is the executive director for the Coalition for Healthy and Resilient Youth in New Mexico and was part of the Project TRUST partnership. She said, "By requiring AI/AN communities to implement evidence-based programming and alter it for cultural relevancy, the fidelity may be compromised and so you won't see the same result as in other communities. Then it looks like you're not doing the work appropriately, which impacts funding. Evidence-based practice is another form of institutional racism—it's a policy and practice that sets us up to fail."[41] In their list of policy recommendations, Project TRUST members call for a shift in emphasis and funding from evidence-based practice to practice-based evidence.

The issue of "fidelity" is important for tribes to consider if they choose to adapt mainstream suicide prevention programs, as Kimberly Ross-Toledo noted. Given the dearth of suicide prevention programs that are specific to AI/AN communities, many tribes are choosing to adapt mainstream programs for their local needs. According to SAMHSA's suicide prevention guide for AI/AN communities, fidelity is defined as "the degree to which a program or strategy is implemented as designed."[42] Communities choosing to adapt existing programs may need to balance tailoring the intervention to local needs with maintenance of the core program features. One way to help maintain program fidelity is to work directly with the developer of that program when making adaptations.[43] Many types of adaptations will not alter the core features of the intervention. For example, tribes could deliver suicide prevention trainings in their native languages, change minor details of role plays (e.g., the location of a conversation with a suicidal individual), or allow more time for a training without compromising program fidelity. An additional consideration is that the definition of fidelity might be different for AI/AN communities. The tribal best practices panel in Oregon defines "fidelity" as acceptance of a program by elders and community teachers.[44] Elders carry knowledge of tribal history, so if they validate a program as consistent with traditional approaches, it has maintained its fidelity over time.

One potential challenge with practice-based evidence may be generalization across Indian Country. Evans, Connell, Barkham, Marshall, and Mellor-Clark write that practice-based evidence in psychology has traditionally been rooted in "narrative reports with . . . self-reflection," and point out that one weakness of such an approach is that it lacks generalizability across different case studies.[45] They suggest that local service providers consider adopting "common approaches to data collection" and that local data repositories be combined to provide "large or national referential datasets." Such coordination across AI/AN communities might help to enhance the evidence base for culturally based suicide prevention and other mental health programs. This type of coordination could be accomplished through the formation of regional task forces including representatives from multiple AI/AN communities. A regional task force could be convened around the issue of suicide prevention, and then data collection instruments could be developed for use by all member communities. Another approach might be for regional tribal organizations or tribal epidemiology centers to develop data repositories in which information from all member tribes is included. The Northwest Portland Area Indian Health Board (NPAIHB), for example, recently established a data repository.[46] Standardized data points collected from all member communities would be helpful in creating a data repository with information that is generalizable across the included tribes.

Another challenge for AI/AN communities in conducting any kind of evaluation, regardless of whether it is practice-based, is that tribes have limited resources for program development and rarely have funding left over for evaluation. Working together to evaluate programs and collect data may help AI/AN communities to make more efficient use of limited funding. Tribes could form regional partnerships and then jointly apply for grants to fund suicide prevention programs and evaluations. These types of partnerships "would facilitate cross-site evaluations," or evaluations that include more than one tribe's data, according to Dr. Antony Stately, director of Mental Health, Chemical Health, and Employee Assistance Programs at the Shakopee Mdewakanton Sioux Community.[47] For example, the Portland Area IHS and the NPAIHB have spearheaded an effort to develop a five-year regional suicide prevention plan designed to include the forty-three federally recognized tribes in Idaho, Oregon, and Washington.[48] The planning team included tribal representatives, the IHS, the NPAIHB, state health departments, state departments of education, universities, regional tribal planning groups, and the SPRC. The planning process included conducting a tribal suicide capacity assessment survey, which examined the region's readiness for engaging in suicide prevention activities. The NPAIHB delegates passed a resolution supporting the suicide prevention plan's implementation in January 2009. According to Dr. Stately, tribal and regional collaborations for suicide prevention

"could help [grant] dollars go further and help tribes get the data that they need for future funding efforts."

Tribes could also collaborate to build their own capacity for conducting evaluations by holding joint regional trainings on "principles of evaluation, including how to use simple data collection and analysis software (e.g., Survey Monkey and Excel)," Dr. Stately suggested. Local universities might be another source of assistance with evaluation for tribes. If universities are working with multiple tribes, then some common data elements may be collected from all communities. Other data elements might be tribally specific and not shared with the university. In any tribal–university collaboration, Dr. Stately recommended that tribes carefully protect their data from unauthorized use through developing memoranda of agreement or contracts stipulating the terms of use. These agreements could also delineate which data elements will be shared with a university, so that if there are specific elements tribes do not wish to share, those could be excluded.

Federal funding agencies have recently become more open to practice-based evidence and tribally developed suicide prevention programs. In SAMHSA's suicide prevention guide for AI/AN communities, evidence-based practices are defined as those that are "based in theory and have undergone scientific evaluation." In contrast, culturally based programs are defined as "those that are grounded in tradition and supported by 'anecdotal evidence.'"[49] Acknowledging that culturally based programs may not have been scientifically studied, the guide states, "SAMHSA has responded to this challenge by encouraging grant applicants who propose a program that has not been formally evaluated to provide other forms of evidence that the practice is appropriate for the population of focus. Evidence for these practices may include unpublished studies, preliminary evaluation results, clinical (or other professional association) guidelines, findings from focus groups held with community members, and other sources."[50] The IHS has funded AI/AN communities' programs through the Methamphetamine and Suicide Prevention Initiative (MSPI). The grant announcement invited communities to develop action plans for "developing or enhancing and implementing community-based, evidence, or practice-based transitional/discharge or aftercare treatment strategies." Grantees were also required to "include culturally appropriate behavioral, policy, and community approaches to transitional/discharge or aftercare treatment."[51]

This openness to community- and practice-based prevention efforts, and creative ways of evaluating them, is also evident in the SAMHSA-funded Native Aspirations program.[52] The goal of this program is to enhance protective factors for healthy development and reduce school violence, bullying, and suicide among AI/AN youth. The Native Aspirations program offers participating communities the

option to either implement an existing intervention or to create their own. Within existing interventions, communities are provided with a "menu" of choices, including (1) "evidence-based," (2) "practice-based," and (3) "culture-based" interventions.[53] These three categories parallel those of the First Nations Behavioral Health Association's (FNBHA) catalog of "effective behavioral health practices for tribal communities."[54] The catalog groups interventions into three main categories: (1) evidence-based practice, which includes programs listed in NREPP (e.g., American Indian Life Skills, which is a suicide prevention curriculum,[55] and Project Venture, a program aimed at preventing alcohol, drug, and tobacco abuse among Native youth[56]); (2) practice-based evidence, which includes AI/AN developed programs that are made available to Indian Country but that do not have evaluation data; and (3) local cultural and spiritual practices. Thus funders are becoming increasingly open to approaches outside evidence-based practice.

DATA-GATHERING TECHNIQUES

Building an evidence base for local, cultural interventions—that is, creating practice-based evidence—can be a challenging task. AI/AN communities are using many creative strategies for doing so. Key informants consulted for this essay had a number of techniques they use and recommendations for other communities about evaluating tribally based programs. A common theme was that traditional methods of research used for "evidence-based practice" often do not work well for the evaluation of tribally based programs. As noted above, many communities lack the large sample sizes required to demonstrate statistical significance, and randomized clinical trials are often unfeasible because of small community size and cultural values that preclude the withholding of a promising intervention from some community members. Rather than viewing tribally based programs as "projects" with discrete endpoints and outcomes, Kimberly Ross-Toledo said that evaluation should look at the broader process of change for program participants: "What is important in the process of programs is changes in attitude."[57] According to Ross-Toledo, an evaluation should ask participants questions such as "Did the program change how you look at your situation? Do you feel like you have the resources and assets in your own life to significantly change your health outcomes? How will you use what you learned in this program in your everyday life?" She noted that, importantly, these types of questions focus on how a program ultimately affects participants' lives. Ross-Toledo suggested that assessments of participants' sense of "self-efficacy" and ability to access resources could be conducted before and after the implementation of a suicide prevention program.

ASSESSING CHANGE OVER TIME

Measuring changes over time is a useful framework for developing evaluation plans for suicide prevention programs. Questionnaires, surveys, or interviews can be conducted at the individual or community level to assess changes that occur after the implementation of a suicide prevention program. Along these lines, the most common evaluation strategy suggested by our key informants was to ask program participants to answer questions about their knowledge, attitudes, and beliefs related to suicide prevention before and after the program (i.e., a pretest and posttest). For example, Dr. Clayton Small uses a pre- and posttest in his highly regarded program, Native HOPE (Helping Our People Endure). Native HOPE is a "peer-counseling (youth helping youth) curriculum that focuses on suicide prevention and related risk factors such as substance abuse, violence, trauma, and depression."[58] The program is strengths-based and "incorporates culture, spirituality, and humor, as well as awareness and education of the warning signs of suicide." Native HOPE has been recognized by SAMHSA as an effective culture-based program, and as such, has been included in the menu of options for communities in the Native Aspirations program.[59] Although the program has developed a strong reputation for success, Dr. Small and his staff do not have adequate funding to analyze the results of the pre- and posttests to generate comprehensive efficacy data. Hiring companies that provide evaluation services can be expensive.

Questions about suicide prevention can be very sensitive, and so pre- and posttests could include questions about less sensitive topics. Planting Seeds of Hope, the suicide prevention program of the Montana–Wyoming Tribal Leaders Council, conducts a combined life skills/basketball camp as part of its suicide prevention efforts. Youth participating in the camp take a pre- and posttest, which includes self-assessment questions about their basketball skills interspersed with questions about knowledge and attitudes related to suicide prevention. This integrated questionnaire is an attempt to sensitively deal with a "very touchy subject," according to Don Wetzel Jr., project director for Planting Seeds of Hope.[60]

Follow-up with suicide prevention program participants could also be conducted through surveys several weeks or months following the intervention. For example, the Alaska Native Tribal Health Consortium (ANTHC) team that is conducting ASIST[61] trainings around Alaska is developing a telephone survey that will be administered a minimum of nine months after the training.[62] This longer follow-up time provides the opportunity to collect data on the longer-term impact of suicide prevention programs. The ANTHC team will assess what information participants have retained from the training and will ask whether it has been useful in their personal and professional lives.

Finally, the impact of a suicide prevention program on a community could be measured using the community readiness model. This model was developed at the Tri-Ethnic Center for Prevention Research at Colorado State University to assess a community's readiness for addressing an issue. The model includes nine stages of readiness, ranging from "no awareness" to "high level of community ownership."[63] Specifically, it is a "method for assessing the level of readiness of a community to develop and implement prevention programming." On a fee-for-service basis, the Tri-Ethnic Center for Prevention will work with communities to develop and conduct a tailored community readiness assessment. Planting Seeds of Hope worked with the center to develop its own assessment, and have used it to measure the stages of community readiness for suicide prevention programming over the years. The initial approach they used was based on the community's readiness stage, and in subsequent years the stage has shifted as suicide prevention programming and awareness efforts have been implemented.[64] Thus community readiness assessments can be conducted regularly over time to measure changes in community awareness and attitudes resulting from suicide prevention programs.

QUANTITATIVE AND QUALITATIVE METHODS

The ultimate goal of suicide prevention programs is to decrease the number of suicide attempts and completions in a community. For this reason, programs might be assessed through collecting quantitative data on the number and prevalence of individuals with suicidal ideation, suicide attempts, and suicide completions before a program is implemented and periodically thereafter. However, there are many potential problems with these types of data. First, it may be difficult to distinguish between a true increase in suicide ideation/attempt/completion and increased reporting of these phenomena. Programs that succeed in increasing awareness about suicide may also result in increased reporting. Second, data on suicide completions may not be current. States and localities vary in their data collection infrastructure, and so it may be difficult to obtain up-to-date data on suicide rates. In fact, it may take several years until data are compiled that can be compared before and after the program was implemented. The time delay in data being entered into the trauma registry and vital statistics system in the state of Alaska, for example, is one challenge for evaluation of ANTHC's suicide prevention efforts, according to Jessica Hagan, epidemiologist at the Alaska Native Epidemiology Center, ANTHC. She said that time lags in suicide surveillance were "not a unique problem for Alaska, but for tribes across the country."[65] Finally, data collected through clinical systems may not reflect the actual prevalence of suicide attempts in

a community. For example, if data are collected using hospitalization records, then individuals who attempt suicide but are not hospitalized would not be counted, as noted by Don Wetzel Jr.[66]

Given some of the problems with collecting data directly on suicide attempts/completions, communities might consider other quantitative measures to evaluate the impact of their suicide prevention efforts. The prevalence of other behavioral health risk factors for suicide, such as substance abuse and depression, could be measured regularly before, during, and after the implementation of a suicide prevention program. On the other hand, protective factors could also be measured. Kimberly Ross-Toledo suggested that data be collected on "school bonding" and "community bonding." Native youths' attitudes about their community and their sense of belonging in it could be assessed as part of pre- and posttests for a suicide prevention program.[67] Rates of screening and referral for depression and suicidal ideation could also be measured.[68] For example, one useful measure might be the number of youth referred to behavioral health services by tribal staff who wind up participating in suicide prevention training. This measure is tracked by Macro International Inc., which is conducting the cross-site evaluation for tribal grantees in the Garrett Lee Smith (GLS) State and Tribal Youth Suicide Prevention Program.[69] Macro International also attempts to track how many of the referred youth receive behavioral health services within three months. Tracking referrals and services received can be challenging because of patient privacy regulations[70] and may require the development of data-sharing agreements with local IHS or tribal behavioral health clinics, according to Anupa Fabian at Macro International. In addition, it may be difficult to interpret data for individuals who do not receive follow-up services, given the multiple reasons for a lack of follow-up (e.g., stigma surrounding mental illness, barriers to accessing behavioral health services, and individuals' personal choices not to keep these appointments). Thus the impact of suicide prevention programs on intermediate outcomes related to suicide, such as rates of depression, substance abuse, violence, and bullying, could be measured.[71]

Quantitative data can be collected related to the process of suicide prevention programs themselves, such as the number of trainings, participants, and results from participants' satisfaction surveys.[72] Macro International also collects these kinds of data. A comprehensive evaluation plan might include both direct measures of suicide attempts and completions as well as other related variables. For example, ANTHC's evaluation plan includes measuring rates of suicide attempts and completions over time; a follow-up phone survey with ASIST training participants; an assessment of their media campaign; evaluation of a culturally adapted version of an existing suicide prevention training

(Critical Incident Stress Management); and a survey instrument for attendees at educational events.

Qualitative data can complement and contextualize quantitative data. For example, as noted above, an increase in the number of reported suicide attempts may actually demonstrate that a suicide prevention program is working, indicating increased awareness. Interviews with community members and behavioral health staff about their perceptions of suicide prevention awareness in the community could help shape the interpretation of quantitative suicide-related data. Similarly, quantitative data could be presented to community members, and their input could be sought on how those data should be interpreted. Qualitative data can also provide a richer portrait of a suicide prevention program's impact. For example, some Native HOPE participants have been involved in videography, or "digital storytelling." In this type of data collection, Dr. Clayton Small said, "you actually get to see and talk to the individuals involved. You hear their stories of overcoming barriers, that's the power of it. Stories like that excite and motivate you."[73] Personal accounts of program participants may also be compelling to policymakers, which can help AI/AN communities advocate for resources to support tribally based suicide prevention programs. Many of the interviewees commented that qualitative approaches capture personal narrative data that may be missed using quantitative methods alone. In-depth interviews and participant observation[74] can help evaluators to find themes and impacts they may not have anticipated beforehand. Thus an inductive approach to data collection and analysis—that is, having no preconceived hypotheses or assumptions—can help further identify innovative or unexpected "best practices" in suicide prevention programming for AI/AN communities.

In Oregon, NICWA, NAYA, and their partners at Portland State University have used qualitative methods in their project on practice-based evidence. Using community-based participatory research methods, they conducted several focus groups with a broad set of stakeholders to determine their definitions of "success and well-being" for urban AI/AN youth.[75] These focus groups yielded a number of indicators of success that community members identified and that the research team labeled "value-based." Connectedness to AI/AN cultural identity, spirituality, and community were among these indicators. The research team then conducted an extensive literature review to see how community-defined success indicators were linked to "empirically-based outcomes and/or distal (long-term) outcomes recognized by researchers, policy-makers, and the larger society."[76] One such distal outcome was reduced rates of suicide, which was linked in the literature review to several "value-based" indicators named by focus group participants: positive cultural identity, reduced perceived discrimination

(from non–AI/AN people), hope, and spirituality. As noted above, intermediate outcomes are useful in evaluating suicide prevention programs because it is not always possible to immediately assess programs' direct impact on suicide prevalence. The Oregon research team cogently argues why intermediate outcomes are important:

> Intermediate, value-based variables can often be as important to cultural communities and community organizations as distal outcome achievement. Examining the relationship between these intermediate, value-based variables and more distal outcomes is an important strategy for both building evidentiary support for agency interventions and supporting the theoretical framework of a program's approach. The development of robust literature support for agency practice also allows providers to take stakeholder input on milestones and outcomes that have significance to specific community and cultural stakeholders, and to create linkages between them that fortify the connection between research and program development. Researchers can in turn utilize literature connecting intermediate and distal outcomes in order to provide agencies with improved arguments for concentrating on community- and culturally-defined outcomes that are shown to be connected to outcomes widely valued by funders, policymakers, and the wider society.[77]

Importantly, intermediate outcomes could also be helpful in marshaling funding if they are clearly linked to distal outcomes, such as reduced suicide prevalence and incidence. Linking intermediate and distal outcomes is cost-effective because direct evaluation of distal outcomes can require expensive longitudinal studies. In sum, a combination of quantitative and qualitative data collection is likely to provide the most complete assessment of a tribally based suicide prevention program's impact. There are a number of creative strategies being used for evaluating suicide prevention programs in AI/AN communities. However, there are also many obstacles that communities face in conducting program evaluation, including a lack of resources, narrow scientific standards of evidence, and the sensitive nature of data related to suicide.

POLICY AND PRACTICE RECOMMENDATIONS

AI/AN communities will be better able to evaluate their suicide prevention programs if key policy changes are implemented at the federal and tribal levels. Below, we offer policy and practice recommendations

for supporting the evaluation of tribally based suicide prevention programs. These recommendations were developed based on the literature review and consultations with key informants.

1. *Fund evaluations of tribally based suicide prevention programs.* As noted above, many of our informants commented about the lack of resources for evaluation. Tribes struggle to find support just for developing their own suicide prevention programs or plans, so evaluation is often not possible. Evaluation is part of the current SAMHSA- and IHS-funded grants and programs for tribal suicide prevention, including GLS, MSPI,[78] and Native Aspirations. However, tribes that are not involved with those programs do not benefit. It may be useful to establish separate grants just for the evaluation of tribally based suicide prevention programs, along with continuing to fund evaluation components of programs such as Native Aspirations, GLS, and MSPI. Project TRUST members also call for increased resources for evaluation. They ask policymakers to "fund the implementation and evaluation of 'promising' and community based practices for Native communities."[79] Key informants consulted for this essay felt that once adequate resources were provided for evaluation, evidence would emerge that tribally based approaches to suicide prevention are effective. Gerry RainingBird of the SPRC said, "Our tribes have always had practice-based evidence, passed down through oral history and through appropriate behavior and actions, thus reaffirming the protective factors in our communities. SPRC emphasizes this point, that there needs to be room for practice-based evidence. Once resources have been designated to document [traditional tribal approaches], then that will show that these protective factors inherent in Native culture are a valid approach and method."[80]
2. *Provide outside evaluation services to communities.* While funding is helpful, communities may benefit more directly from offers of outside evaluation services. Federal agencies, for example, could contract with evaluators to provide technical assistance to tribes for evaluating their own suicide prevention programs. Such contracts would be independent of existing contracts for evaluators to work with tribal grantees in the GLS, MSPI, and Native Aspirations programs. In particular, outside

evaluation services could be offered to tribes that have developed their own unique, local suicide prevention efforts. Such local programs are often difficult to evaluate because they are not part of larger projects involving several communities. Dr. Monique Smith commented that communities have already done substantial work in developing their own suicide prevention programs, and they may not have further resources to then conduct evaluations.[81] Dr. Smith previously was the administrative clinical director of United American Indian Involvement Inc. in Los Angeles. She said that rather than asking communities to collect quantitative data on their suicide prevention programs, it would be helpful for funding agencies to provide consulting statisticians or researchers to conduct evaluations. She also said that communities should not have to make changes in their programs to fit the criteria of a set evaluation form, as doing so could decrease program efficacy. Outside evaluators should be carefully chosen, reputable, respectful of tribal sovereignty and ownership of data, willing to work with tribes as equal partners, culturally sensitive, and understanding of the unique contexts of AI/AN communities.

3. *Broaden the definition of acceptable evidence.* A common theme throughout the literature review and key informants' comments was that tribes are not always able to meet the criteria for evidence-based practice, and that practice-based evidence or other kinds of data should ideally be accepted by funders. AI/AN communities may not be able to meet the criteria for evidence-based practice for a variety of reasons, as discussed above. Federal agencies are becoming more open to practice-based evidence for AI/AN communities. We support this trend and recommend continued dialogue with AI/AN communities about what should count as evidence for the purposes of program evaluation and grant funding. In our experience, AI/AN communities are not opposed to scientific studies, and in fact, they actively seek out high-quality data that can help to improve program effectiveness. The research methods used to evaluate AI/AN community programs need to be culturally appropriate but can still be rigorous. We expect that if AI/AN communities are provided with resources and technical assistance for evaluation, the rigor of evidence they collect should increase over time.

4. *Maintain tribal confidentiality, such as through aggregate data collection.* Tribal grantees are often required to provide data to funders. Suicide is a sensitive topic, and so some tribes may be reluctant to share their data. As noted above, evaluation and data collection are important for establishing program efficacy and generalizing "best practices" across Indian Country. For this reason, we encourage tribes to evaluate their programs when possible. However, we also recognize both the sensitivity of suicide-related data and tribal rights to limit data access. In balancing the need for data with tribal confidentiality concerns, we recommend that funders be flexible in their requirements for tribal data. According to Anupa Fabian at Macro International, one compromise could be to allow tribes or tribal consortia to provide aggregate data for an entire community (or group of tribes) so that specific individuals or tribes are not identified. Macro International has accepted aggregate data for a few grantees in the cross-site evaluation for the GLS program. All tribal grantees are required to participate in the evaluation, and Macro staff attempt to balance SAMHSA's need for data with tribal concerns about confidentiality by collecting aggregate data in some cases.[82] This approach might lessen tribal concerns about confidentiality and facilitate aggregation of data across Indian Country. Aggregate data collection is likely to be most useful for quantitative variables such as the rates of suicide attempts or completions, which are particularly sensitive data points. Some kinds of data however, such as depression screening rates or numbers of individuals participating in suicide prevention programs, might not be well-suited for aggregation across tribes. Communities using different suicide prevention programs will likely have differing outcomes that may be incomparable and thus difficult to aggregate.
5. *Develop tools for tribes to share data securely with one another, such as a password-protected Web site.* Tribes often look to one another for ideas and tools for developing suicide prevention programs. The SPRC, which provides technical assistance to GLS tribal grantees and other Native communities, has launched a private Web site for current and former grantees.[83] This site allows tribal suicide prevention grantees to share information with one another, including sample brochures, policies, and other suicide

prevention program details. It provides a model for how tribes might share their data but avoid making that data public. Such a Web site could perhaps be a useful tool more broadly in Indian Country for tribes to assist one another in developing creative evaluation strategies and suicide prevention programs. A central, secure data portal for suicide prevention program evaluation data might also help show which approaches might be useful across Indian Country.[84] If such a portal were developed, tribes would also need related technical assistance and training to use it. This training would need to include information on protection of tribal data and identifiers as well as patient confidentiality, particularly related to compliance with the Health Insurance Portability and Accountability Act of 1996 privacy and security rules.

CONCLUSION

Suicide is a major health challenge for AI/AN communities. Multiple strategies will be required to address this epidemic. AI/AN communities are developing unique and creative local programs for suicide prevention. Support of these programs is critical: while there are common factors underlying suicide throughout Indian Country, the context and culture of each community is unique. Evaluation of tribally based suicide prevention programs is important for establishing their efficacy and advocating for increased funding. There are a number of innovative approaches to evaluation that communities might consider, as described above. A coordinated effort among AI/AN community leaders, policymakers, and health care providers is also important in establishing an evidence base for tribal suicide prevention programs, as we have noted in our policy recommendations. Although the suicide epidemic in Indian Country is a daunting challenge, there is hope for the future because of the tireless work of tribal leaders, community members, policymakers, agency staff, and health care providers, who are working to foster wellness and greater resiliency in AI/AN communities.

AUTHOR BIOGRAPHIES

Puneet Chawla Sahota, PhD, is senior research fellow at the National Congress of American Indians Policy Research Center (NCAI PRC) and an MD candidate at Washington University in St. Louis. Puneet served as the NCAI PRC's first postdoctoral fellow from 2009 to 2010,

during which time she conducted a national study of suicide prevention approaches being used in American Indian/Alaska Native communities.

Sarah Kastelic, PhD, is chief of staff at the National Indian Child Welfare Association. She worked at the National Congress of American Indians (NCAI) from 1998 to 2010 and served as the founding director of the NCAI Policy Research Center from 2003 to 2010. She is Alutiiq and an enrolled member of the Native Village of Ouzinkie.

NOTES

We thank all the individuals who served as key informants and contributed their expertise to this essay: Terry Cross, Caroline Cruz, Anupa Fabian, Barbara Franks, Jessica Hagan, Kyla Hagan, Petrice Post, Gerry Raining-Bird, Kimberly Ross-Toledo, Dr. Clayton Small, Dr. Monique Smith, Dr. Antony Stately, Elly Stout, and Don Wetzel. In addition, Bobbi Jo Bruce provided insightful comments and advice in the preparation of this essay. We also are grateful to Ahniwake Rose, Dr. Rose Weahkee, Cara Cowan Watts, and Kathy Hughes for helping to distribute the call for comments. Emily R. White Hat provided valuable assistance in manuscript preparation and formatting. The work described here was conducted at the National Congress of American Indians Policy Research Center, and was supported by grant funding from the Association of American Indian Physicians and the Nathan Cummings Foundation. This essay does not necessarily represent the views of these funders.

1 Centers for Disease Control and Prevention, "Deaths: Leading Causes for 2004," *National Vital Statistics Reports* 56, no. 5 (2007): http://www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56_05.pdf.

2 Ibid., 5.

3 Dale Walker, Patricia Silk Walker, and Douglas Bigelow, "Native Adolescent Suicide Cofactors: Prevention and Treatment Best Practices" (presentation, Rapid City, S.D., July 26–27, 2006), http://www.oneskycenter.org/pp/presentations.cfm; U.S. Department of Health and Human Services (DHHS), *To Live To See the Great Day That Dawns: Preventing Suicide by American Indian and Alaska Native Youth and Young Adults,* DHHS Publication SMA (10)-4480, CMHS-NSPL-0196 (Rockville, Md.: Center for Mental Health Services, Substance Abuse, and Mental Health Services Administration, 2010), http://www.sprc.org/library/Suicide_Prevention_Guide.pdf.

4 DHHS, *To Live,* 1.

5 These questions were: (1) What kinds of research studies would you like to see discussed in the essay? (2) What kinds of research studies on suicide prevention would be important to your community? (3) Are you familiar with specific programs related to suicide prevention that should be included in the essay? (4) What resources do you suggest we examine in preparing this essay? (5) What kinds of policy or practice recommendations would you like to see included in the essay? (6) How can we make this essay most useful to tribal leaders? (7) How can we make this essay most useful to health practitioners? (8) What other questions do you have that you would like us to answer in the essay?

6 Herbert Rubin and Irene Rubin, *Qualitative Interviewing: The Art of Hearing Data* (Thousand Oaks, Calif.: Sage Publications, 2005), 34.

7 Ibid.

8 Ibid., 71

9 Margaret LeCompte and Jean Schensul, *Analyzing and Interpreting Ethnographic Data* (Walnut Creek, Calif.: AltaMira Press, 1999), 45.

10 Jo Ann Kauffman, Written Testimony, Senate Select Committee on Indian Affairs, Oversight Hearing on Indian Youth Suicide, 109th Cong., 2nd sess., 2006, http://www.indian.senate.gov/public/_files/Kauffman051706.pdf.

11 David Royse, Bruce Thyer, and Deborah Padgett, *Program Evaluation: An Introduction,* 5th ed. (Belmont, Calif.: Wadsworth, Cengage Learning, 2010).

12 Earl Babbie, *The Practice of Social Research* (Belmont, Calif.: Wadsworth, Cengage Learning, 2010).

13 DHHS, Substance Abuse and Mental Health Services Administration, Cooperative Agreements for State-Sponsored Youth Suicide Prevention and Early Intervention, Request for Applications (RFA) No. SM-08-201, CFDA No. 93.243 (2007), http://www.samhsa.gov/Grants/2008/sm_08_001.pdf; APA Presidential Task Force on Evidence-Based Practice, "Evidence-Based Practice in Psychology," *American Psychologist* 61, no. 4 (2006): 273.

14 Institute of Medicine (IOM), *Crossing the Quality Chasm: A New Health System for the 21st Century* (Washington, D.C.: National Academies Press, 2001). IOM definition adapted from David Sackett, Sharon Straus, W. Scott Richardson, William Rosenberg, and R. Brian Haynes, *Evidence-Based Medicine: How to Practice and Teach EBM,* 2nd ed. (London: Churchill Livingstone, 2000); APA Presidential Task Force on Evidence-Based Practice, "Evidence-Based Practice in Psychology."

15 IOM, *Crossing the Quality Chasm,* 47.

16 APA Presidential Task Force on Evidence-Based Practice, "Evidence-Based Practice in Psychology."

17 DHHS, Substance Abuse and Mental Health Services Administration, Cooperative Agreements for State-Sponsored Youth Suicide Prevention and Early Intervention.

18 DHHS, Substance Abuse and Mental Health Services Administration, NREPP: SAMHSA's National Registry of Evidence-Based Programs and Practices, http://www.nrepp.samhsa.gov/.

19 DHHS, Substance Abuse and Mental Health Services Administration, NREPP Review Process, http://www.nrepp.samhsa.gov/Reviews.aspx (accessed July 4, 2012).

20 Teresa LaFromboise and Beth Howard-Pitney, "The Zuni Life Skills Development Curriculum: Description and Evaluation of a Suicide Prevention Program," *Journal of Counseling Psychology* 42, no. 4 (1995): 479–86.

21 University of Wisconsin Press, American Indian Life Skills Development Curriculum, http://uwpress.wisc.edu/books/0129.htm (accessed July 4, 2012).

22 Ibid.

23 Suicide Prevention Resource Center and American Foundation for Suicide Prevention, Best Practices Registry for Suicide Prevention, http://www.sprc.org/featured_resources/bpr/index.asp.

24 Elly Stout, e-mail communication to the author, May 28, 2010.

25 Suicide Prevention Resource Center, Sources of Strength

program description, Best Practices Registry for Suicide Prevention, http://www.sprc.org/bpr/section-I/sources-strength (accessed July 4, 2012).

26 Stout, e-mail communication.

27 APA Presidential Task Force on Evidence-Based Practice, "Evidence-Based Practice in Psychology," 284.

28 Philip Fisher and Thomas Ball, "Tribal Participatory Research: Mechanisms of a Collaborative Model," *American Journal of Community Psychology* 32, nos. 3–4 (2003): 207–16.

29 Lawrence Green, "Public Health Asks of Systems Science: To Advance Our Evidence-Based Practice, Can You Help Us Get More Practice-Based Evidence?" *American Journal of Public Health* 96, no. 3 (2006): 406–9.

30 Ibid.

31 Caroline Cruz and John Spence, "Oregon Tribal Evidence Based and Cultural Best Practices" (working paper, Oregon Indian Council on Addictions, 2005), http://www.oregon.gov/DHS/mentalhealth/ebp/tribal-ebp-report.pdf.

32 Barbara Friesen, Kris Gowen, Pachida Lo, Abby Bandurraga, Terry Cross, and Cori Matthew, *Literature Support for Outcomes in Evaluating Culturally- and Community-Based Programs Indicators of Success for Urban American Indian/Alaska Native Youth: An Agency Example* (Portland: Portland State University, 2010), http://www.rtc.pdx.edu/PDF/pbPBELiteratureOutcomes.pdf.

33 Caroline Cruz, "Many Pathways to Follow: Oregon Tribal Best Practices" (presentation, Addictions and Mental Health Division Integrated Conference: Hope, Resilience, Recovery, Salem, Ore., May 25, 2010).

34 Cruz and Spence, "Oregon Tribal Evidence Based," 11.

35 Oregon Addictions and Mental Health Division, "Position Paper on Native American Treatment Programs and Evidence-Based Practices" (2007), 3, http://egov.oregon.gov/DHS/mentalhealth/ebp/native-american-trtmntpro-ebp.pdf.

36 Cruz, "Many Pathways."

37 Oregon Addictions and Mental Health Division, Approved Tribal Practices Application Form, http://egov.oregon.gov/DHS/mentalhealth/ebp/reports/nativeam-appform.doc.

38 Project TRUST Partnership, "Project TRUST: Report and Recommendations for Enhancing the Well-Being of Native American Youth, Families, and Communities" (2003), 3, http://hsc.unm.edu/som/prc/_pdfs/TRUST_Report_May08.pdf.

39 Ibid., 48.

40 Robert N. Clinton, Carole E. Goldberg, and Rebecca Tsosie, "The Uneven History of Federal Indian Policy: Politics, Assimilation, and Autonomy," in *American Indian Law: Native Nations and the Federal System*, ed. Robert N. Clinton (Newark: Lexis-Nexus, 2003), 19–45.

41 Kimberly Ross-Toledo, interview by Puneet Sahota, March 1, 2010.

42 DHHS, *To Live*, 73.

43 Ibid., 61.

44 Cruz, "Many Pathways".

45 Chris Evans, Janice Connell, Michael Barkham, Chris Marshall, and John Mellor-Clark, "Practice-Based Evidence: Benchmarking NHS Primary Care Counseling

Services at National and Local Levels," *Clinical Psychology and Psychotherapy* 10, no. 6 (2003): 375.

46 Northwest Portland Area Indian Health Board, Resolution #11-02-04: Development of Plan for a Northwest Tribal Data Repository (2011), http://www.npaihb.org/images/policy_docs/resolutions/FY11/11-02-04%20NW%20Tribal%20Data%20Repository.pdf.

47 Antony Stately, e-mail message to author, May 25, 2010.

48 Portland Area Indian Health Service and Northwest Portland Area Indian Health Board, "Northwest Suicide Prevention Tribal Action Plan: A Five-Year Strategic Plan for the Tribes of Idaho, Oregon, and Washington, 2009–2013" (2009), http://www.npaihb.org/images/healthissues_docs/suicide/NW%20Tribal%20Suicide%20Action%20Plan%202009.pdf.

49 DHHS, *To Live*, 68.

50 Ibid., 69.

51 DHHS, Indian Health Service, The Methamphetamine and Suicide Prevention Initiative for American Indian and Alaska Native Youth, Funding Announcement Number HHS-2009-IHS-METHY-0001, http://www.ihs.gov/.

52 Kauffman and Associates, "Native Aspirations Project: Insights into the Community Engagement Process" (presentation at Garrett Lee Smith Suicide Prevention Grantee Meeting: Creating Communities of Hope, Phoenix, January 5–9, 2009), http://www.sprc.org/grantees/statetribe/2009/PDF/NativeAspirationsCommunityCoordinators.pdf.

53 Kauffman, Written Testimony, Oversight Hearing on Indian Youth Suicide.

54 FNBHA Catalogue of Effective Behavioral Health Practices for Tribal Communities, http://www.fnbha.org/pdf/fnbha_catalogue_best_practices_feb%2009.pdf.

55 LaFromboise and Howard-Pitney, "Zuni Life Skills Development Curriculum."

56 National Indian Youth Leadership Project, Project Venture, http://www.niylp.org/programs.htm.

57 Ross-Toledo interview.

58 Native PRIDE, Native HOPE (Helping Our People Endure), http://www.nativeprideus.org/.

59 Clayton Small, interview by Puneet Sahota, February 18, 2010.

60 Don Wetzel Jr., interview by Puneet Sahota, February 24, 2010.

61 ASIST (Applied Suicide Intervention Skills Training) is a widely used and well-researched training for caregivers on suicide intervention. It is being used with cultural adaptations in AI/AN communities as well. For more information, see http://www.livingworks.net/AS.php.

62 Kyla Hagan, Barbara Franks, and Jessica Hagan, interview by Puneet Sahota, February 24, 2010.

63 Colorado State University, Tri-Ethnic Center for Prevention Research, The Community Readiness Model, http://www.triethniccenter.colostate.edu/communityReadiness_home.htm.

64 Wetzel interview.

65 Hagan, Franks, and Hagan interview.

66 Wetzel interview.

67 Ross-Toledo interview.

68 Hagan, Franks, and Hagan interview.

69 Fabian interview.

70 DHHS, Health Information Privacy, http://www.hhs.gov/ocr/privacy.

71 Antony Stately, e-mail communication to author, May 4, 2010.

72 Fabian interview.

73 Small interview.

74 Participant observation is defined as "a process of learning through exposure to or involvement in the day-to-day or routine activities of participants in the research setting," according to Stephen Schensul, Jean Schensul, and Margaret LeCompte. See *Essential Ethnographic Methods* (Walnut Creek, Calif.: AltaMira Press, 1999).

75 Friesen et al., *Literature Support*.

76 Ibid., 5.

77 Ibid.

78 DHHS, Indian Health Service, The Methamphetamine and Suicide Prevention Initiative for American Indian and Alaska Native Youth, http://www07.grants.gov.

79 Project TRUST Partnership, "Project TRUST," 73.

80 Gerry RainingBird, interview by Puneet Sahota, February 17, 2010.

81 Monique Smith, interview by Puneet Sahota, April 19, 2010.

82 Fabian interview.

83 Gerry RainingBird, Elly Stout, and Petrice Post, interview by Puneet Sahota, February 24, 2010.

84 Stately, e-mail communication.