

"Leadership for a Healthy Arizona"

Arizona Department of Health Services



ARIZONA DEPARTMENT OF HEALTH SERVICES

Demographics and Effective Risk Communication

Research Report
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EXECUTIVE SUMMARY

INTRODUCTION

Emergency preparedness is crucial to minimizing the negative effects to public health in the event of a bioterrorism attack or public health emergency. It is essential to have a plan that addresses the needs of the entire population. Most information and safety instructions are given through traditional media such as television, radio and print as well as through local emergency agencies. For some, however, additional measures are required. These hard-to-reach populations may need alternative alert systems, nontraditional means of communications, additional instruction or assistance.

BACKGROUND

The Arizona Department of Health Services is interested in determining ways to effectively communicate with the entire population of Arizona in the event of a bioterrorism attack or public health epidemic. The ADHS is especially interested in exploring communication tactics for special populations who may be harder to reach and are therefore particularly at-risk. The Colorado Department of Public Health and Environment conducted a similar study in July of 2003 and the Texas Department of Health completed a similar study in February of 2004. In both of these studies, several populations were researched. The methodology and results of the "Colorado Demographics and Effective Risk Communication" study (CDERC) and the "Barriers to and Facilitators of Effective Risk Communication Among Hard-to-Reach Populations in the Event of a Bioterrorist Attack or Outbreak" study (BFERC) were to be used as a template and supplement to this study.

METHODOLOGY

A multiple phase research study was conducted, which combined the use of secondary data, a telephone survey and qualitative research. Literature reviews were completed during the CDERC and BFERC studies, which were applicable to this project; information from those reviews was utilized to enhance this research project.

In Phase 1, a telephone survey was conducted with experts and advocates to identify the at-risk populations. The sample included representatives from various urban and rural health care organizations, educational institutions and human services organizations. The purpose of interviewing these groups was to get the opinions of those who work with multiple populations and could therefore determine which groups are most at-risk in comparison to others. Twenty-one interviews were conducted.

In Phase 2, secondary research was completed in order to collect demographic information on the population of Arizona and specifically, the at-risk groups. In this phase, all the at-risk

groups identified after Phase 1 were included. In addition, the literature review completed for the CDERC and BFERC studies was utilized. The goal of Phase 2 was to complete a demographic profile for each at-risk population including population size and geographic locations and to gain further insight about each population.

In Phase 3, in-depth interviews were conducted with **key informants** - staff in organizations serving the target populations. The purpose of interviewing these individuals was to speak with those who serve a specific population and are therefore the most knowledgeable about the needs of the group they work with. Only the groups identified as targets for this study were included. Thirteen interviews were completed. At least two professionals were interviewed from each of the following most at-risk populations: border groups, mentally ill, rural, Native Americans, deaf and hard of hearing, and low income. For respondents that worked with more than one of the above groups, they were asked to respond for all the groups that they served.

There were three goals to attain in Phase 3. One was to ascertain the best ways to reach and communicate with each target population from those who work with these populations. Secondly, to determine if there are other agencies that serve each target population and if they should be added to the sample for this phase of the project. Thirdly, to learn the most effective ways to recruit and conduct focus groups for each target population.

In Phase 4, additional qualitative research was conducted with the target populations who are currently underserved in terms of a communication plan during a bioterrorism attack or public health epidemic. In-depth interviews were conducted with community leaders in the Native American and border populations. In addition, two focus groups were conducted with those in the urban Native American tribes; one with members of urban Native American groups and one with community leaders with the urban Native American groups.

OBJECTIVES

- Identify target populations that are at higher risk in the event of a bioterrorism attack or public health epidemic
- Gather demographic information on these at-risk populations including size and geographic location
- Determine which at-risk populations are not included in the CDERC or BFERC studies and will become the target populations for this research
- To find out who the leaders and influencers are in the communities of the at-risk populations
- Identify the communication needs and barriers of each target population
- Recommend the most effective communication strategies for each target population in the event of a bioterrorism attack or public health epidemic

FINDINGS BY POPULATION

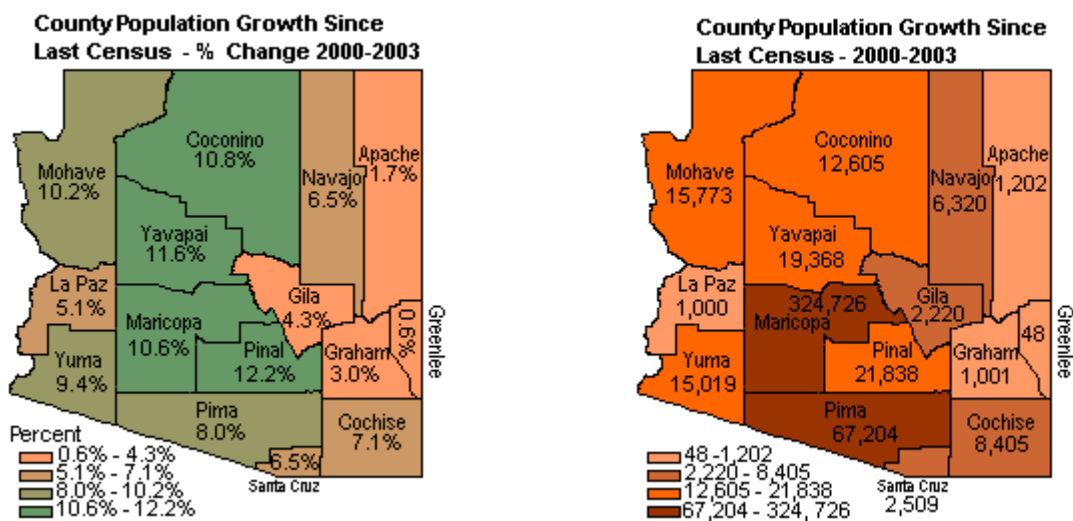
The following populations were identified as potentially hard-to-reach or at-risk for not receiving information in the event of a bioterrorism attack or public health emergency. The following report outlines the key findings, population description, barriers to communication, and communication and messaging recommendations for each group.

- | | |
|---|--|
| <ul style="list-style-type: none"> Blind Deaf and Hard of Hearing Elderly Homeless Illegal immigrants/Border populations Low income | <ul style="list-style-type: none"> Mentally ill Native Americans Non-English speakers Physically disabled Rural residents |
|---|--|

There may be some overlap across these populations. For example, many who are elderly may also fall into the hard-of-hearing category; some of the Native American tribes are in rural parts of the state; illegal immigrants and border populations are highly likely to be non-English speakers.

OVERALL POPULATION OF ARIZONA

First, it is important to take note of the overall population of Arizona in order to put information on hard-to-reach populations into context. The population estimate for the state of Arizona in 2003 was 5,580,811, an increase of 8.8 percent from the 2000 population of 5,130,632. The following state maps illustrate the population growth over the last three years by number and percentage.

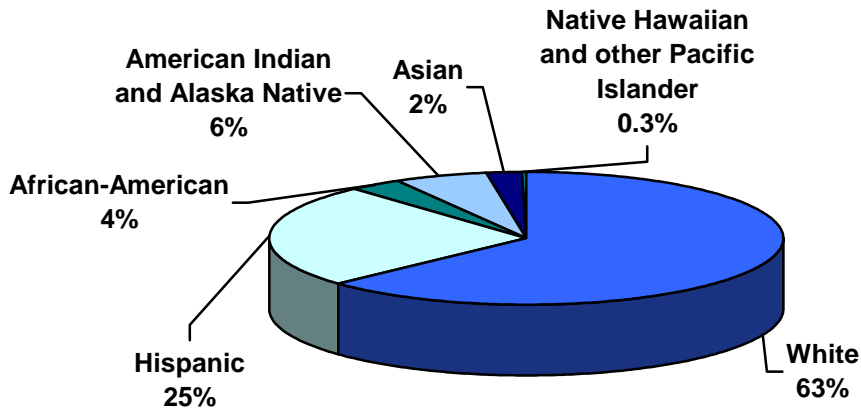


Source: DES Official 2003 Population Estimates and actual Census 2000 figures.

Population by Race

There are 185,599 African-Americans living in Arizona, making up 3.6 percent of the population. Hispanics comprise 25.3 percent of the population with 1,295,617 living in Arizona. There are 292,552 Native Americans and Alaskan natives living in Arizona, which make up 5.7 percent of the population.

The following chart illustrates the population of Arizona by race.



The following table specifies race percentages by county.

Race By County			
County	Hispanic Heritage*	African-American	Native American
Apache	4.5	0.2	76.9
Cochise	30.7	4.5	1.1
Coconino	10.9	1.0	28.5
Gila	16.6	0.4	12.9
Graham	27.0	1.9	14.9
Greenlee	43.1	0.5	1.7
La Paz	22.4	0.8	12.5
Maricopa	24.8	3.7	1.8
Mohave	11.1	0.5	2.4
Navajo	8.2	0.9	47.7
Pima	29.3	3.0	3.2
Pinal	29.9	2.8	7.8
Santa Cruz	80.8	0.4	0.7
Yavapai	9.8	0.4	1.6
Yuma	50.5	2.2	1.6

(Source: 2000 US Census Bureau)

*Note – Persons of Hispanic heritage can be of any race

BLIND

Key Findings

- The blind and visually impaired account for 2.7 percent of the population of Arizona
- This group can be communicated with through radio or the use of sirens
- One of the main special needs of this group is transportation in the event of an evacuation

Population Description

Approximately 3 to 4 percent of the U.S. population is blind or visually impaired. Of those with this impairment, 40 to 45 percent are employed. As of 1999, there were an estimated 137,131 legally blind residents of Arizona, which means that between 75,000 and 82,000 of them are likely unemployed. Those who are unemployed within this population would be at higher risk for not receiving communication than those who are working. The chart on the following page shows the estimated prevalence of visual impairment by age group.

Arizona Estimated Prevalence of Visual Impairment			
Age in Years	Total Population	Prevalence Rates	Prevalence Estimates
0-19	1,548,584	0.005	7,743
20-44	1,884,801	0.0105	19,791
45-54	720,858	0.028391	20,466
55-64	507,501	0.035108	17,817
65-74	391,543	0.060221	23,579
75-84	281,440	0.104764	29,485
85 and up	100,987	0.180726	18,251
Total Estimated Disabled Population	5,435,714	Total Estimated Legally Blind Population	137,131

(Source: 1999 Survey for Income and Program Participation (SIPP) U.S. Census Bureau)

Barriers to Communication and Special Needs

The blind and visually impaired could be alerted of an emergency using radio or sirens. They are trusting of authorities and are no less likely to believe information being provided. If an evacuation were called for, they may need assistance with transportation. Workplaces often use a "buddy system" for blind employees in order to assist them in an emergency. A similar program could be set up for assisting blind people at home.

DEAF AND HARD OF HEARING

Key Findings

- The deaf and hard of hearing make up approximately 6-8 percent of the population of Arizona
- Communication with this group should be done in both captioning and ASL
- There are several agencies that serve this group who are willing to assist in emergency preparedness

Population Description

"Deaf" refers to individuals who are deaf in both ears, those who cannot hear or understand any speech and those who at best can hear and understand words shouted into their better ear.

There is a lack of consistency on the reported number of deaf and hard-of-hearing individuals between various agencies. According to the US Census data, 154,612 hard-of-hearing persons were estimated in the 1999 U.S. Census, amounting to 5.68 percent of the Arizona population. 13,040 Arizonans were reported as being "deaf," making up 0.48 percent of the total population during the 1999 U.S. Census. According to the Arizona Commission for the Deaf and Hard of Hearing (ACDHH), there were 398,422 deaf and hard-of-hearing persons in 2000, of which approximately 41,695 were deaf. The ACDHH estimates that .9 percent of the population is deaf and assumes this percentage when determining the number of deaf in any given city or county. The following table illustrates the estimated total number of deaf persons in each county.

Number of Deaf by County	
Apache	568
Cochise	990
Coconino	969
Gila	435
Graham	278
Greenlee	70
La Paz	169
Maricopa	25,494
Mohave	1312
Navajo	802
Pima	7099
Pinal	1508
Santa Cruz	316
Yavapai	1430
Yuma	1327

(Calculated using 2000 U.S. Census Bureau information with ACDHH Estimates)

For many, the onsets of an auditory disability come during later life. The following chart, compiled from estimates from the ACDHH, shows the estimated percentage increase in the hard-of-hearing/deaf population, ages 65+, for the next 25 years.

Hard of Hearing/Deaf in Arizona		
Year	Number	Percent Increase from 1996
2000	168,010	5%
2010	195,097	22%
2020	267,884	67%
2030	366,275	129%

(Source: Arizona Commission for the Deaf and Hard of Hearing)

Barriers to Communication and Special Needs

There is a significant difference between those who are considered deaf versus those who are hard of hearing. The resources and tactics used to communicate with these two groups may overlap in some areas, but are different. Those who are hard of hearing, but who can still hear, will likely understand written English and will likely hear loud alerts or sirens in the case of an emergency.

It is important to keep in mind that for those deaf people who sign, the only language they know is American Sign Language (ASL). ASL is not the same as English and those who use ASL may not understand written English very well. For this reason, it is vital that communication with these individuals be done using ASL whenever possible. If captioning is the only option, the BFERC study suggests that using simple sentences and visual aids, such as maps, would enhance the communication and allow for better understanding.

Other ideas that were given by key informants during the in-depth interviews were captioned television announcements; text messages to pagers and cell phones; ability to use relay service 24 hours per day to contact a Public Safety Answering Point; and Internet through news providers, software providers and telecommunication providers. One key informant reported that at her agency, they have a Webmaster who has set up an e-mail tree that can distribute information fairly quickly. Similar to the tactic recommended for the blind, one key informant suggested that friends and neighbors of the deaf should alert them of an emergency.

According to the interviews, the use of a spokesperson for the deaf and hard of hearing would work very well. The key factor in using a spokesperson, however, is to ensure that their message is given in both ASL and captioning.

There are a number of agencies that work specifically with the deaf and hard of hearing. These agencies are listed in Appendix 1.

ELDERLY

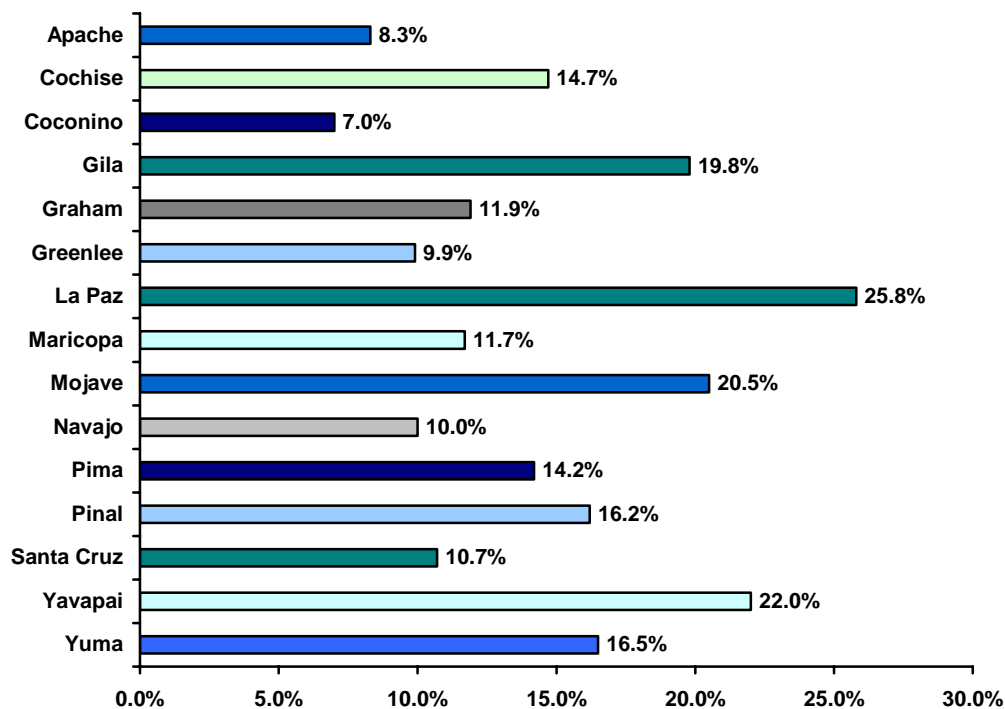
Key Findings

- Those over the age of 65 make up 13 percent of the population of Arizona
- Of those, 39.7 were classified as having some sort of disability
- While most of the elderly will have little or no problems with communication or directions in the event of an emergency, there is a subset who will
- Television is the most effective way to communicate information
- The ability to follow directions and transportation may be a problem for some in this group

Population Description

According to the 2003 U.S. Census, there are currently 667,839 persons aged 65 and over in Arizona. In 2000, there were an estimated 653,778 elderly persons living in Arizona. Of those, 39.7 percent were classified as having some sort of a disability. The number of those 65+ is expected to grow significantly over the next few decades. As the retired populations continues to choose warmer locations to reside and as the baby-boomer generation reaches retirement age, the population of Arizona and other sunbelt states is expected to climb dramatically.

The following graph illustrates the current percentage of elderly persons aged 65+ residing in each county. Note the high percentage of persons aged 65 and over in La Paz, Yavapai and Mojave County.



The table below illustrates the expected growth of the elderly population in Arizona. Counties in bold have the largest number of elderly residents.

Arizona Population 65+					
County	1998	2000	2005	2015	2025
Apache	4,765	4,580	5,100	6,975	9,868
Cochise	16,982	16,324	18,175	24,859	35,168
Coconino	7,842	7,538	8,393	11,479	16,240
Gila	10,355	9,954	11,083	15,158	21,444
Graham	3,995	3,840	4,276	5,848	8,273
Greenlee	961	924	1,029	1,407	1,990
La Paz	4,053	3,896	4,338	5,933	8,393
Maricopa	357,803	343,943	382,942	523,769	740,968
Mohave	33,032	31,753	35,353	48,354	68,405
Navajo	8,615	8,281	9,220	12,611	17,841
Pima	126,439	121,541	135,322	185,087	261,840
Pinal	23,940	23,013	25,622	35,045	49,577
Santa Cruz	4,299	4,132	4,601	6,293	8,903
Yavapai	37,904	36,436	40,567	55,486	78,495
Yuma	19,603	18,844	20,980	28,696	40,596
TOTAL	660,588	635,000	707,000	967,000	1,368,000.00

(Source: Arizona Health Status and Vital Statistics)

Barriers to Communication and Special Needs

For most over the age of 65, there should be no barriers in communication. There may be some in this group, however, who could have issues in receiving, understanding or believing information provided to them. According to the CDERC, inadequate literacy may be a problem in communicating emergency information to the elderly. Changes in hearing, sight and speech can lead to isolation and mistrust for what others are saying. It is estimated that 10-15 percent of the elderly experience mild to moderate memory loss and that approximately 5 percent have dementia. Those with dementia may not be able to understand or follow directions.

Those who live alone may be especially at-risk in the event of an emergency. The good news is that most of the elderly who live alone have televisions and telephones. Television is by far the best way to reach this group, as many watch television or have the television on all day long. Known and respected spokespersons may be a useful means to deliver information to this group.

Certain limitations may also play a factor in emergency preparedness. Some in this group may not physically be able to follow directions; for example, evacuating their apartment building while carrying their oxygen tank. Some may be unable to prepare the proper supplies and finally, transportation could be an issue. There also may be a very small percentage of this group who is exceptionally distrustful and may not open the door or answer the telephone.

In order to solve some of these issues, Morgan County in Colorado instituted the "Adopt a Grandparent" program to connect elderly who live alone with younger people in the community.

This and similar programs are used to ensure that the elderly who live alone will be checked on in the event of an emergency.

HOMELESS

Key Findings

- On any given day in Arizona, there are an estimated 30,000 homeless persons
- The most effective way to provide this group with information is through the agencies that serve them

Population Description

As of 2001, the estimated number of homeless persons on any given day is 30,277. The number of emergency shelter beds available is 3,220 and the number of traditional shelter beds available is 5,220. The Homeless Coordination Office within the Community Services Administration (CSA) plans and coordinates activities and contracts funds to community-based organizations and local governments. In addition to the urban homeless, it is important to keep in mind that a number of homeless people live in the forests and extremely remote areas.

Barriers to Communication and Special Needs

A study by Thomas Drabek showed that nearly one-third of homeless people received initial warnings of an emergency through the media. In order to decide what to do, homeless people get information from others on the street. They also may go and visit the affected area of the emergency, depending on the situation. The homeless have a high regard for those who work at the shelters and agencies that serve them. They will trust what these agency workers say and are far more likely to follow directions given by agency workers. The best way to communicate with the homeless is to disseminate information through the agencies that serve them.

It is important to note that a high proportion of the homeless have an untreated mental illness. Some estimate this number to be as high as 50 percent of the homeless population. This group will be especially difficult to communicate with in the event of an emergency.

Most homeless people can read and they would read brochures. According to research conducted in the CDERC, if the homeless know there is a crisis, contrary to what most literature indicates, they will not resist authority. Only those who are inebriated or psychotic will not follow directions.

The first response of many homeless people in an emergency will be to turn toward the shelters and food banks for information and assistance. All the literature on homelessness suggests that homeless people will resist warnings from those in uniform but during the focus groups conducted for the CDERC study, homeless people noted that they want the police to be the ones to alert them to danger. "I don't have any problem with police." "I wouldn't be offended by police." Both groups suggested using loudspeakers mounted on police cars to alert

the public of an emergency. The groups also indicated that the reason they would not resist police assistance is because the police know them and are familiar with their whereabouts.

Despite the confidence expressed in media and government officials as truthful sources of information, the homeless community has a high level of distrust of the services being provided during an emergency. They feel that they will be the last to be taken care of and that they are ignored. In any media announcements, they would need to be assured that receiving treatment would not require identification as many of them do not have drivers licenses, social security cards or proof of an address.

ILLEGAL IMMIGRANTS/BORDER POPULATIONS

Key Findings

- There are approximately 500,000 undocumented immigrants in Arizona
- Information can be communicated through traditional media such as radio and television, specifically through Spanish language channels
- All information should be communicated in Spanish
- Recognizable community leaders are excellent sources to communicate to this population.

Population Description

Across the United States, 54 percent of illegal immigrants come from Mexico. According to the United States Immigration and Naturalization Services (INS), approximately 283,000 undocumented immigrants resided in Arizona during 2000. This number ranks Arizona as sixth with the largest number of illegal immigrants in the country and is 146 percent higher than the previous INS estimate in 1996 and 222 percent higher than the estimate of 1990. Estimates released by the Pew Institute show that Arizona has gained a significant number of undocumented immigrants in the past five years, bringing the estimate to 500,000. The Pew Institute also reported that Arizona now has the fifth largest population of undocumented people in the United States. In terms of border populations specifically, the number of these individuals is not known and is thought to vary throughout any given year.

Barriers to Communication and Special Needs

According to key respondents, television and the Internet were regarded as the most efficient ways to relay the information to this group. With regard to language barriers, using the radio to translate the messages in both English and Spanish was noted as the most effective means of communication for this group. Specifically, 100.3, 97.1 and 105.3 were regarded as the top three radio stations in Arizona. Regardless of the media used, messages should be simple and as visual as possible; graphics would be helpful. The messages should be repeated and should include every step that needs to be taken.

The use of bilingual and bicultural community health workers may be utilized to assist this group to alleviate language barriers and frustrations. Security officers and main personnel at schools were also regarded as a useful means to communicate the messages to families and

children. During the in-depth interviews, key informants also noted the use of a recorded messages in school telephone lines for parents who are calling the schools with frequently asked questions. Another agency mentioned was the Promo Torta, which is comprised of community health workers whom are recruited by the community to serve as front-line workers specializing in disease control at the borders.

Public health workers that work on both sides of the border could be very useful in providing information to this group. Other agencies that serve the border group were Bureau of Customs and Border Protection (formerly known as U.S. Customs), USDSA, Grapo Beta (this agency serves to assist migrants before legally crossing to the United States), Taharata groups that have tribal members living in Mexico, Federal and Naturalization groups, county health departments and the Campecio groups in Yuma and Summerton.

Based on research conducted with community leaders, these areas do not have local television programming – the nearest station being in Tucson, so most of the local news is received through radio and print mediums. Other recommended sources include health departments, clinics, schools, churches, chambers and the Internet. During the interviews with community leaders, literacy rates were also cited as being a barrier to communication. Therefore, written materials should include graphics as well as text.

Finally, it was noted in interviews with community leaders that in past emergencies, such as a fuel spill into a creek, the elderly tended to stay behind along with business owners who were concerned about looting. In addition, there is a concern that some may try to evacuate to Mexico, which raises a number of possible concerns, including the need to share information across borders.

LOW INCOME

Key Findings

- There are approximately 128,000 families living in poverty, accounting for 13.9 percent of the population of Arizona
- Television and radio are the most effective ways to communicate with this group
- Complacency could be an issue for this group; some may not be concerned enough to follow directions

Population Description

There are two slightly different versions of the federal poverty measure: the poverty thresholds and the poverty guidelines. The poverty thresholds are the original version of the federal poverty measure and are updated each year by the Census Bureau. The thresholds are used mainly for statistical purposes such as preparing estimates of the number of Americans in poverty each year. (In other words, all official poverty population figures are calculated using the poverty thresholds, not the guidelines.) The poverty guidelines, on the other hand, are issued each year in the Federal Register by the Department of Health and Human Services. The guidelines are a simplification of the poverty thresholds for use in administrative purposes such as determining financial eligibility for certain federal programs. The most recent poverty line for a family of four is defined as earning less than \$18,400 per year.

The following table specifies the number and percentage of families and persons living below the poverty line.

Below Poverty Level				
	# Families	% Families	# Persons	% Persons
Arizona	128,318	9.9%	698,669	13.9%
Apache	5,108	33.5%	25,798	37.8%
Cochise	4,195	13.5%	19,772	17.7%
Coconino	3,549	13.1%	20,609	18.2%
Gila	1,785	12.6%	8,752	17.4%
Graham	1,363	17.7%	6,952	23.0%
Greenlee	181	8.0%	842	9.9%
La Paz	764	13.6%	3,798	19.6%
Maricopa	61,519	8.0%	355,668	11.7%
Mohave	4,277	9.8%	21,252	13.9%
Navajo	5,410	23.4%	28,054	29.5%
Pima	22,432	10.5%	120,778	14.7%
Pinal	5,486	12.1%	27,816	16.9%
Santa Cruz	2,056	21.4%	9,356	24.5%
Yavapai	3,703	7.9%	19,552	11.9%
Yuma	6,490	15.5%	29,670	19.2%

(Source: 2000 U.S. Census Bureau)

Barriers to Communication and Special Needs

This population is mainly served by local community health centers. There are state and federal programs and agencies that may provide service. Hospitals are also required to provide service. While these community health centers are used by the low-income population, many of these individuals do not visit health centers on a regular basis, so providing information at the health centers will not be far-reaching enough.

The use of major media such as television and radio would be the most effective way to alert those in this group of an emergency or provide information. In some areas, word-of-mouth is often a means of getting information. This group would not need assistance in following directions as long as the information is presented in an easily understandable format. According to key informants in the in-depth interviews, complacency is more of a problem than understanding or even trust issues. The literature on this group supports that theory. The use of a spokesperson could help but it would have to be someone that people have confidence in and who has authority.

MENTALLY ILL

Key Findings

- There are more than 61,000 non-institutionalized mentally ill persons in Arizona, accounting for 1.2 percent of the population
- Traditional media can be used to alert this population of an emergency
- The support systems they have in place (such as case workers and outpatient treatment facilities) should be used to provide information, direction and assistance

Population Description

The mentally ill population is one that is difficult to define and profile. Mental illness is seen in many forms and afflicts those of all demographic categories. It is a disorder that is often unreported or underreported and therefore, many statistics are estimates. The National Alliance for the Mentally Ill estimates the prevalence of serious mental illness in the United State as 5.4 percent. According to the Excel Group Health and Human Services, one in five families will be affected in their lifetime by a severe mental illness such as major depression, schizophrenia and bipolar disorder.

According to the U.S. Census 2000, there are 61,495 non-institutionalized mentally ill persons in Arizona (ages 5+), comprising 1.2 percent of the population. The Arizona Department of Health Services Division of Behavioral Health Services is charged with the responsibility of overseeing all publicly funded behavioral health services. By the end of fiscal year 2004, an average of 121,766 clients per month received behavioral health treatment services. Also, during fiscal year 2004, 163,000 people received prevention services.

The Division of Behavioral Health Services also oversees the Arizona State Hospital. The average monthly census for fiscal year 2004 for all patient populations was 310 patients.

Barriers to Communication and Special Needs

Most of the members of this group have a very structured support system – whether that is through a group home, outpatient treatment center, case worker or private therapist – depending on the severity of their illness. According to key informants, people who are able to live in the community tend to be very stable. In addition, those whose illness is left untreated will most often end up in a state institution or homeless. It is estimated that 4,180 Arizonans with a serious mental illness are homeless.

The most effective way to communicate with these individuals, aside from traditional media, is by providing information through the aforementioned support systems – case managers, community mental health centers and other support and treatment agencies. There are several organizations that serve this group including state and local agencies as well as advocacy groups.

NATIVE AMERICANS

Key Findings

- Native Americans comprise 5.7 percent of the population of Arizona
- This group is extremely diverse, effective communication methods with this group will vary between tribes and between rural and urban groups
- Both traditional and nontraditional means of communication should be utilized

Population Description

The population of Native Americans in Arizona is very diverse, from the more urban tribes to those in isolated rural areas. The Bureau of Indian Affairs' (BIA) responsibility is the administration and management of 55.7 million acres of land held in trust by the United States for American Indians, Indian tribes and Alaska natives. There are 562 federally recognized tribal governments in the United States; 21 of these are in Arizona (see listing below).

In Arizona, there are 292,552 Native Americans. According to the Arizona Department of Commerce, there are 25 American Indian communities. A map of the tribal lands can be found on the following page.

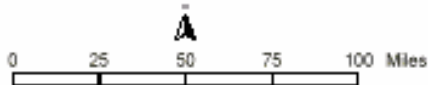
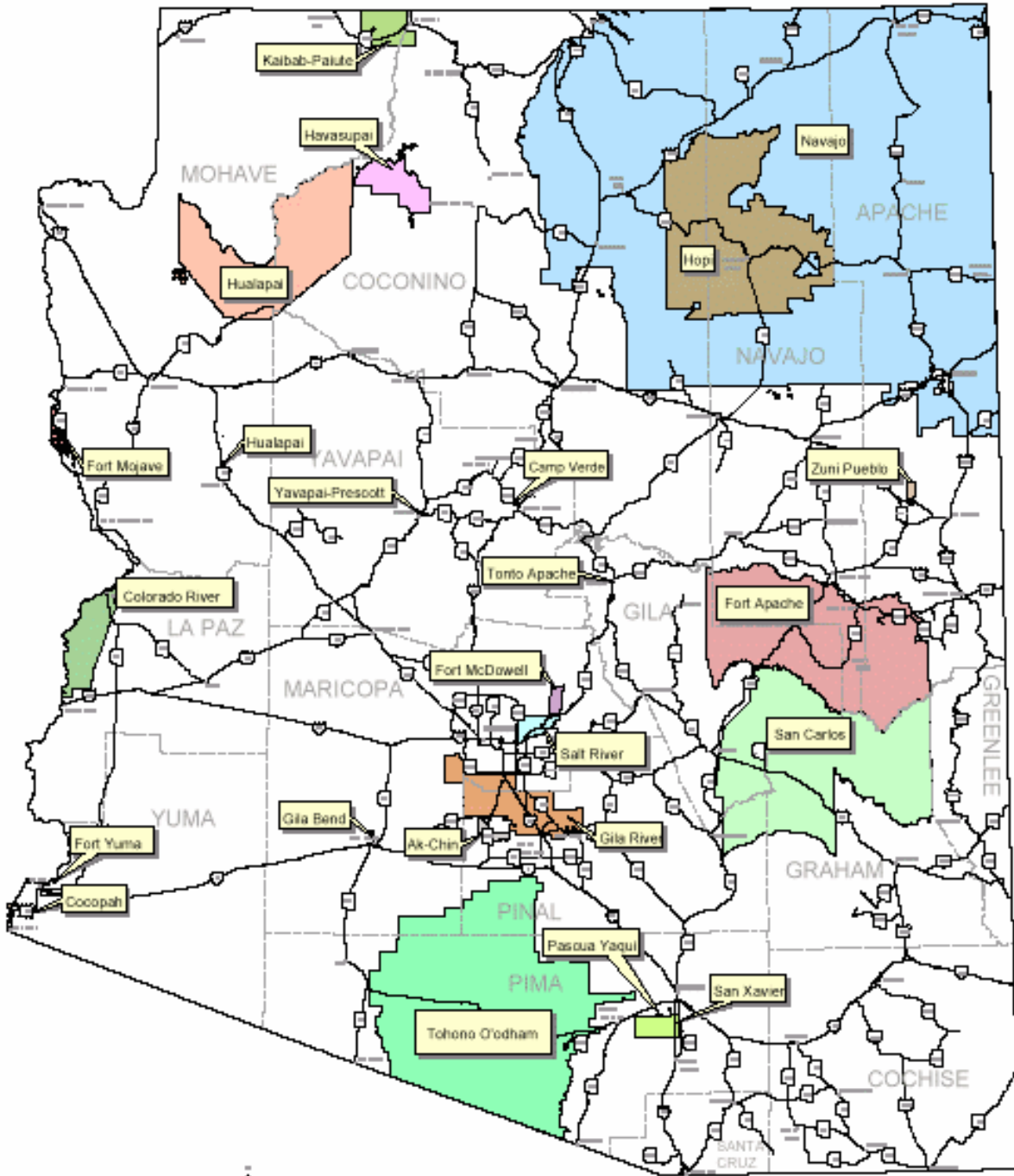
The Inter Tribal Council of Arizona (ITCA) is an organization that provides the member tribes with the means for action on matters that affect them collectively and individually, to promote tribal sovereignty and to strengthen tribal governments. There are 19 tribes in the ITCA.

The following are the 21 federally recognized tribes:

- Ak-Chin Indian Community
- Yavapai-Apache Nation
- Navajo Nation
- Cocopah Indian Reservation
- Colorado River Indian Tribes
- White Mountain Apache Tribe
- Fort McDowell Yavapai Nation
- Fort Mojave Indian Tribe
- Gila River Indian Community
- Havasupai Indian Reservation
- Hopi Tribe
- Hualapai Tribe
- Kaibab Paiute Tribe
- Pascua Yaqui Tribe
- Salt River Pima-Maricopa Indian Community
- San Carlos Apache Reservation
- Tohono O'odham Nation
- Tonto Apache Tribe
- Yavapai-Prescott Indian Tribe
- Fort Yuma-Quechan Tribe
- San Juan Southern Paiute Tribe

Map of the Tribal Homelands

American Indian Reservations



Arizona Department of Transportation
Transportation Planning Division



Barriers to Communication and Special Needs

Both traditional and nontraditional means can be used to communicate with Native Americans including national and local television news programs and local radio. Information can be sent home with school children, inserts can be placed into water bills and information packages can be sent to tribal leaders.

During in-depth interviews, key informants reported several ways to communicate with the Native American population such as the use of Public Information Officers, community and tribal representatives, tribal leaders, county health departments and health clinics. For some tribes and tribe members, there may be some language-barrier issues to following directions, but most tribal communities will ensure that information is passed on to those who may not understand. Key informants also mentioned that there may be varying barriers, not between tribes or tribal geographies, but between age groups of tribe members. The elder members may be skeptical of the information, while the youth may be complacent.

There are many agencies that serve Native Americans. Some of the agencies listed by the key informants were The Intertribal Council of Arizona, Bureau of Indian Affairs, Indian health clinics and Indian health services.

There were mixed feelings on the idea of a spokesperson – some key informants felt it may help lend credibility to the information while others felt that the accuracy and delivery of the information is more important. Those who did like the idea of a spokesperson suggested tribal and/or local leadership.

According to in-depth interview and focus group research conducted with community leaders, one of the primary barriers to communication for Native American groups is the sheer geographic span and lack of technical infrastructure, especially with the more rurally located tribes. Language barriers were cited as problematic especially in receiving information through mass media; however a key means of spreading information is through word-of-mouth, which alleviates some of the language barrier issues. Many community leaders feel that information should be communicated in not only English and Spanish, but also in the native languages of the tribes.

Community leaders reported that information distributed by Indian Health Services is useful and understandable. Other sources recommended include radio, local newspapers, printed materials in general (with illustrations), the post office, flyers, and community stores.

According to information gathered from community leaders as well as members of the urban Native community, urban Native Americans differ from the more rural groups in several ways. They are less likely to believe general information from the media and from government sources; they tend to be more mobile; they are somewhat less likely to need a community leader to act as a spokesperson; they tend to be more likely to listen to the radio for information (before word-of-mouth); and for families with children, the school plays a more critical role in communications.

NON-ENGLISH SPEAKERS

Key Findings

- Those who speak a language other than English at home account for 25.9 percent of the population of Arizona, of those, 56.1 percent speak English very well
- Emergency broadcasts should be done in various languages
- Non-English speakers tend to have friends and family around them who can translate for them and assist them in the event of an emergency

Population Description

Like other parts of the country, Arizona has experienced an increase in its foreign-born population. In Arizona, the foreign-born population of 656,183 represented an increase of 136 percent over 1990's foreign-born population of 278,205. In Arizona, those who are foreign-born made up 12.8 percent of the total population, up from 7.6 percent in 1990. The percentage of foreign-born also increased in Maricopa County (up from 7.3 percent in 1990 to 14.4 percent in 2000) and Phoenix (up from 8.6 percent to 19.5 percent). Among the foreign-born population in Arizona in 2000, 48.4 percent came to this country in the preceding decade, and 29.6 percent were naturalized citizens (down from 39.1 percent in 1990). Among the foreign-born population in Arizona in 2000, 71.5 percent were born in Latin America.

With the increase in the foreign-born population comes an accompanying rise in the number and percentage of people who speak a language other than English at home. As of 2000, that proportion was 25.9 percent up from 20.8 percent in 1990. Increases in the percentage of people speaking non-English languages at home also were recorded in Maricopa County (from 15.9 percent in 1990 to 24.1 percent in 2000) and Phoenix (from 18.7 percent to 32.2 percent). Of the 1,229,237 people age 5 and older in Arizona who spoke a language other than English at home in 2000, more than half (56.1 percent) spoke English very well and 75.4 percent spoke Spanish at home. The chart on the following page shows the number of Arizona residents who speak a foreign language at home.

Foreign Languages Spoken at Home in Arizona	
Spanish	927,395
Navaho	89,950
German	25,105
French	15,575
Chinese	13,770
Apache	11,075
Tagalog	10,050
Vietnamese	10,000
Pima	9,355
Italian	8,990

(Source: Census Bureau report, April 2004)

According to the U.S. Census Department, the number of Americans who do not speak English has soared in the past ten years. Eighteen percent of Americans do not speak English in their own homes. By their own acknowledgement, over 17 million of these Americans do not speak English “very well.” Nearly seven million speak little or no English. The majority of non-English speakers (75%) live in just seven states, Arizona, California, New York, New Jersey, Florida, Texas and Illinois. The following chart shows the number of persons who do not speak English “very well” in Arizona as a whole and by county.

Number of Arizona residents who speak English less than “very well”	
Arizona	539,937
Apache	1,713
Cochise	27,750
Coconino	7,048
Gila	4,731
Graham	5,047
Greenlee	1,970
La Paz	3,513
Maricopa	540,742
Mohave	11,282
Navajo	4,185
Pima	179,591
Pinal	36,495
Santa Cruz	27,956
Yavapai	11,173
Yuma	64,197

(Source: 2000 U.S. Census)

Barriers to Communication and Special Needs

Although immigrants and non-English speakers may be new to a community, the literature shows that they are rarely isolated. They often have family and friends in their new community. These communities and family groups tend to be very close-knit and cooperative. Research indicates that Hispanic immigrants are very family-focused and are more likely than other ethnic groups to rely on family and friends as a secondary source of risk information.

In the first phase of this research, non-English speakers were noted as being the most at-risk for not receiving or understanding information provided. Communicating with this group can be done through traditional means as long as emergency messages are broadcast in many languages. This is particularly important for Spanish speakers. In other Native American or Immigrant communities, non-English speakers often have a relative or friend who is bilingual and can translate for them.

It is exceptionally important that translations be accurate. Written translation tends to be especially subject to errors. Community leaders in each community are the best spokespeople in situations where emergency information needs to be spread quickly and accurately.

PHYSICALLY DISABLED

Key Findings

- The physically disabled comprise 8.2 percent of the population of Arizona
- Communication of an emergency can be done through traditional means
- Transportation will be an issue for those who are mobility-impaired, especially in the event of an evacuation

Population Description

In Arizona, roughly 60,843 people 5 years old and older have been classified as having a physical disability, which amounts to 8.2 percent of the total population. The following table illustrates the total number of physically disabled persons in each county.

Arizona County	Physical Disability
Apache	974
Cochise	1,709
Coconino	1,471
Gila	755
Graham	435
Greenlee	125
La Paz	385
Maricopa	33,327
Mohave	3,062
Navajo	1,114
Pima	10,617
Pinal	2,627
Santa Cruz	345
Yavapai	1,991
Yuma	1,906
Total in Arizona	60,843

(Source: 2000 U.S. Census Bureau)

Barriers to Communication and Special Needs

Research conducted with some members of this group suggests that many are very independent and have set up their own support systems with friends, family and neighbors. There may be some in this group, however, who do not have these supports in place and may need assistance in the event of an emergency. Participants in the research conducted for the CDERC suggest that a list of the disabled be created so that neighbors and/or public officials could check in on them during an emergency. Transportation may also be a problem for some who may have mobility impairment, especially in the event of an evacuation.

RURAL RESIDENTS

Key Findings

- Rural Residents make up 10.7 percent of the population of Arizona
- Using local health clinics and agencies to conduct outreach and alerts would be the most effective means of communication
- While traditional media may reach some in this group, nontraditional means must also be utilized

Population Description

Arizona has four counties that are described as frontier, which means they have fewer than seven people per square mile: Apache, Coconino, Greenlee and La Paz. Other counties have populations of fewer than 15 persons per square mile. Those counties include: Gila, Graham, Mohave and Navajo. These eight counties make up 10.7 percent of the population of Arizona.

Barriers to Communication and Special Needs

One of the most effective means of communication with this group is to utilize the local health clinics or hospitals to conduct an outreach program specializing in training residents by assimilating drills and/or mock alerts. One rural agency has a system of communicating in which they send out their employees to alert local citizens who are then assigned to alert others and so on – a sort of chain of information. This means of communicating is useful during emergency situations to reach those who do not have telephone service or access to media such as television or radio.

The majority of rural residents do have access to radio. This group should be advised to keep battery-operated radios in case of power outages along with a comprehensive preparedness kit. Key informants also felt that one of the best means of communication was the Internet if the residents had access to it. They also reported that a spokesperson could be used. If so, it should be someone from the local community – an elected official for example.

When key informants were asked which agencies would provide the most adequate assistance to the rural population, they responded that hospitals and centralized clinics (for areas that do not have easy access to hospitals) would be most appropriate. A listing of all the certified rural health clinics in Arizona is provided in Appendix 1. Some key informants reported concern not only for getting information to area residents, but also getting information at the agency if there were a power outage. They report that most rural agencies are very isolated, do not have satellite telephones or generators. If the power were to go out, the agencies themselves would be unable to get the information they need to assist those in their area.

GENERAL RECOMMENDATIONS

Messages and Message Delivery

The key to creating effective messages is simplicity and step-by-step explanations. The easier directions are to understand, the more likely people will be to follow them and follow them properly. Simple messaging also allows for easier translation of the information. Repetition and giving information visually are two other important measures that should be taken whenever possible.

Translation is a key factor in messaging. It is important to provide information not just into Spanish, but also into Native American languages and, if possible, into American Sign Language. Any messaging given through the television should certainly include captioning.

Whenever possible, information should be culturally relevant. For some groups, the use of spokespersons will be exceptionally useful. Having messages delivered by members of various cultures and communities should lead to an increase in the awareness and cooperation among the various target audiences.

The use of authority figures in delivering messages may or may not be well received. For some, authority figures such as police or government officials will cause them to take information more seriously. For others, these figures may instill skepticism or distrust. It is generally accepted that the more well-known an authority figure is the more trusted he or she is.

Traditional Media

For the majority of the population, as well as most of the hard-to-reach groups, television is the best way to communicate information. People are accustomed to receiving information through the news media and have experienced “special alerts” and “special reports” broadcast on television in the past. Research has shown that during emergency situations, the vast majority of individuals will get their information from television.

Radio is another common means of receiving information, especially in emergency situations. Because of the variety of radio stations, this means of communication is an excellent way to reach some special populations. Those who speak only Spanish, for example, listen to Spanish-language radio stations.

Printed materials are essential for emergency preparedness. Whether through brochures, newspaper articles, newsletters or other forms, information provided in print will be very useful for distributing information to various populations. Print materials can be translated into any language and can be designed to show procedures visually. These materials can also be customized to allow for cultural sensitivities. Depending on the type of printed item or source, these materials can also lend credibility to the information - for example, providing emergency preparedness information through a church bulletin or community group.

Non-Traditional Tactics

For some of the hard-to-reach populations, the use of non-traditional tactics will need to be employed in order to assure that information is provided to and understood by all. Some examples of nontraditional means of providing information include e-mail or pager "trees," sending information home with school children, creating buddy systems and sending agency workers door-to-door in rural areas. There are a multitude of tactics that can be put into place for various populations. Each hard-to-reach population is different, but all of these nontraditional tactics involve local and community support to aid in the emergency preparedness process. Nearly all of the agencies contacted during this research process indicated their willingness to help in any way they can. It is vital to involve these agencies to help in preparing the hard-to-reach populations.

Pre-Education and Training

The best way to effectively deal with an emergency is to be prepared. Preparedness is one of the key purposes to this research. Education and training should be provided to all residents of Arizona; however the hard-to-reach populations will need even more attention to ensure they will be as safe as possible in the event of a bioterrorism or public health emergency.

The use of community-based training, videotape trainings, handouts and brochures and lists of places to get emergency information are some of the ways to prepare the overall public and the hard-to-reach populations. Again, utilizing local agencies and ensuring that information is provided in ways that are easiest to understand for each specific group is very important in training and education materials.

APPENDIX 1

Agency Lists

The following is a list of agencies that serve the Deaf and Rural populations. These lists were provided by key informants and may not be fully comprehensive.

Deaf

Advocates for the Disabled
Contact: Tammy
4520 North Central Avenue, Suite 575
Phoenix, Arizona 85012
(602) 212-2600 V
(602) 212-2702 TTY
(602) 212-2606 Fax
Web: www.cirs.org/homepage/advocates/

Arizona AIDS Services f/t Deaf
1427 N. 3rd Street, #125
Phoenix, AZ 85004
(602) 253-2437 V
(602) 253-5736 TTY

Arizona Association of the Deaf (AZAD)
Web: www.azad-online.org/index.htm

Arizona Bridge to Independent Living
(ABIL)
Contact: Sandy Guinn
1229 E. Washington St.
Phoenix, AZ 85034
(602) 256-2245
800-280-2245 TTY/V
(602) 254-6407 Fax
Email: Sandyg@abil.org
Web: www.abil.org

Arizona Bridge to Independent Living
(ABIL)
Contact: Diane Patton
225 E. 1st Street
Mesa, AZ 85201
800-280-2245 TTY/V
(480) 655-9750
(480) 665-9750 Fax
Web: www.abil.org

Arizona Deaf Senior Citizens' Coalition
Yita Harrison, President
8336 E. Sells Drive
Scottsdale, AZ 85281
(602) 946-7009 TTY
(602) 945-5397 Fax

Arizona Governor's Statewide
Independent Living
Council
1789 W. Jefferson St.
Phoenix, AZ 85006
(602) 542-2595
(602) 542-6279 FAX
Web: www.azrsa.org/silc/
Email: azsilc@cirs.org

Arizona Recreation Center for the
Handicapped
(ARCH)
1550 W. Colter St.
Phoenix, AZ 85015
(602) 230-2226 V
(602) 230-2221 Fax
Web: www.archaz.org/

Arizona Technology Access Program
(AzTAP)
Northern Arizona University
2715 N. 3rd, Street, Suite 104
Phoenix, AZ 85004
(602) 728-9534 Voice
(602) 728-9536 TTY
(602) 728-9353 FAX
(800) 477-9921 Toll-Free
Website: <http://www.nau.edu/ihd/aztap>

Community Information and Referral
1515 E. Osborn Road
Phoenix, AZ 85014
(602) 263-5586 V/TTY
(602) 263-8845 Administration
800-352-3792 V/TTY
(602) 263-0979 Fax
Web: www.cirs.org
Email: cirs@cirs.org

Connecting Arizona Advocates, Inc.
(CAzAD)
Attn: Secretary
P.O. Box 5007
Phoenix, AZ 85076-0007
(480) 898-4930 tty
(413) 581-7798 fax
Web: www.cazad.org
Email: Secretary@cazad.org

Greater Phoenix Deaf Senior Citizen
1545 W. Osborn Rd.
Phoenix, AZ 85015
(480) 821-2050 TTY/Fax

Natl' Fraternal Society of the Deaf (NFSD)
Contact: Howard Wahl, President
16109 W. Copper Crest Lane
Surprise, AZ 85374
(623) 975-9620 TTY/V
(623) 975-0014 Fax
Email: pawah12@aol.com

Never Too Young
Bureau of Community and Family Health
Services
Office of Women's and Children's Health
2927 N. 35th Ave., Suite 300
Phoenix, AZ 89017
(602) 364-1400 V
(602) 364-1496 Fax

New Born Screening
602-364-1409

Phoenix Association of the Deaf, Inc.
Glenn Lockhart, President
1545 W. Osborn Road
Phoenix, AZ 85015
Web: www.pad.cc
Email: info@pad.cc

Senior Citizens - Mesa
Donald R. Berke
1452 S. Ellsworth Road #2130
Mesa, AZ 85208
(480) 380-1140 TTY

Senior Help Line
602-264-4357

Valley Center of the Deaf (VCD)
3130 E. Roosevelt
Phoenix, AZ 85008
(602) 267-1920 TTY/V
Web: www.valleycenterofthedeaf.org

TUCSON

Advocates for the Disabled
Tucson Shalom House, Inc.
2590 North Alvernon Way
Tucson, Arizona 85712
(520) 325-8800 V
(520) 325-8842 Fax
Web: www.cirs.org/homepage/advocates

Community Outreach program for the
Deaf
(COPD)
Peg Harmon/Anne Levy
268 W. Adams
Tucson, AZ 85705
(520) 792-1906 TTY/V
800-234-0344 V
(520) 770-8544 Fax
Email: peghddp@aol.com or
anneldpp@aol.com

Direct Center for Independence
Ann Meyer, MS CRC
1023 N. Tyndall Ave.
Tucson, AZ 87516
(520) 624-6452 TTY/V
800-342-1853 V
(520) 792-1438 Fax
Web: <http://azstarnet.com/~direct>
Email: direct@azstarnet.com

Disability Issues Coalition of Southern
Arizona
(DISCA)
7289 E. Caminito Feliz
Tucson, AZ 85710
(520) 722-8407 V/Fax
Email: gean@prodigy.net

Tucson Deaf Community Center (TDCC)
c/o COPD
268 W. Adams
Tucson, AZ 85705
(520) 792-1906 TTY/V

Tucson Deaf Seniors
c/o 268 W. Adams
Tucson, AZ 85705
(520) 294-1256 TTY

RURAL ARIZONA

Advocates for the Disabled
Catholic Social Services of Yavapai
116 N. Summit Street
Prescott, AZ 86301
(928) 778-2531 V
(928) 771-9531 Fax

Arizona Technology Access Program
(AZTAP)
Pamela Alcala
Institute For Human Development
Northern Arizona University
Box 5630
Flagstaff, AZ 86001
(928) 523-5879 V
(928) 523-1695 TTY

NATIONAL

Alexander Graham Bell Association for the
Deaf
3417 Volta Place, NW
Washington, DC 20007-2778
(202) 337-5220 V/TTY
Web: www.agbell.org

American Martial Arts Association for the
Deaf
c/o Daniel Briones, Jr.
P.O. Box 861
Upland CA 91785
Web: www.amaad.com

Association of Late-Deafened Adults
10310 Main Street, #274
Fairfax, VA 22030
(404) 289-1596 TTY
Web: www.alda.org

ALDA Inc.
1145 Westgate St., Suite #206
Oak Park, IL 60301
877-348-7537 V/Fax
(708) 358-0135 TTY
Web: www.alda.org/

American Society for Deaf Children
1820 Tribute Road, Suite A
Sacramento, CA 95815
800-942-2732
Web: <http://deafchildren.org>

Association of Auditory-Verbal
International
2121 Eisenhower Avenue, Suite 402
Alexandria, VA 22314
703-739-1049 (V)
703-739-0874 (TTY)
Web: www.auditory-verbal.org

Cochlear Implant Club International
5335 Wisconsin Ave., NW, Suite 440
Washington, DC 20015-2034
(202) 895-2781 V/TTY
Web: www.cici.org

C.I.S.S.
International Committee of Sports for the
Deaf
7310 Grove Road, Suite #106
Frederick, Maryland 21704, USA
(301) 620-2990 Fax
Website: www.ciss.org
Email: info@ciss.org

Deaf and Hard of Hearing in the
Government
P.O. Box 76087 Washington D.C. 20013-
6087
Web: <http://www.dhhig.org/>
Email: info@dhhig.org

Deaf Aztlan
Deaf Latino Organization
Web: www.deafvision.net/aztlan/

Meniere's Network
c/o Ear Foundation at Baptist Hospital
1817 Patterson Street
Nashville, TN 37203
800-545-HEAR V
(615) 329-3807 V
(615) 329-7849 TTY

National Association of the Deaf
814 Thayer Avenue
Silver Spring, MD 20910
(301) 587-1788 V
(301) 587-1789 TTY
Web: www.nad.org

National Black Deaf Advocates
246 Sycamore Street, Suite 100
Decatur, GA 30030
(404) 687-9593 TTY
Web
www.bin.org/assocorg/nbda/nbda.htm

National Cued Speech Association
c/o Dr. Catherine Quenin
Speech-Language Pathology Department
Nazareth College of Rochester
4245 East Avenue
Rochester, NY 14618
800-459-3529 V/TTY

National Organization on Disability
910 Sixteenth Street, N.W., Suite 600
Washington, DC 20006
(202) 293-5968 TTY
(202) 293-5960 V
(202) 293-7999 Fax
Web: www.nod.org
Email: ability@nod.org

Telecommunications for the Deaf, Inc.
8719 Colesville Road, Suite 300
Silver Spring, MD 20920-3919
(301) 589-3786 V
(301) 589-3006 TTY
Web: www.tdi-online.org/organization.htm

Rural

Certified Rural Health Clinics in AZ (as of
11/2004)

Copper Queen Medical Associates - Bisbee
Location: 101 Cole Avenue, Bisbee,
Arizona 85603
Mailing Address: Same as Above
Phone: (520) 432-2042
Fax: (520) 432-2098
Year of Initial Certification: 2004

Copper Queen Medical Associates –
Douglas
Location: 100 East 5th Street, Douglas,
Arizona 85607

Mailing Address: Same as Above
Phone: (520) 364-7659
Fax: (520) 364-8541
Year of Initial Certification: 2004

Greasewood Clinic
Location: Off Route 15, Greasewood, AZ
Mailing Address: P.O. Box 457, Ganado,
AZ 86505
Phone: (928) 654-3208
Fax: (928) 654-3478
Year of Initial Certification: 1999

La Paz Medical Services, Quartzsite

Location: 150 East Tyson Road,
Quartzsite, AZ
Mailing Address: P.O. Box 4618,
Quartzsite, AZ 85359
Phone: (928) 927-8747
Fax: N/A
Year of Initial Certification: 2004

Pleasant Valley Community Medical Center
Location: 288 Tewksbury, Young, AZ
85554
Mailing Address: Same as Above
Phone: (928) 462-3435
Fax: N/A
Year of Initial Certification: 1995

Regional Center for Border Health/San
Luis Walk-In Clinic
Location: 1896 East Babbitt Lane, Suite D,
San Luis, Arizona 85349
Mailing Address: Same as Above
Phone: (928) 722-6112
Fax: (928) 722-6113
Year of Initial Certification: 2004

Sage Outpatient Clinic
Location: Ganado, AZ
Mailing Address: P.O. Box 457, Highway
264
Ganado, AZ 86505
Phone: (928) 755-4640
Fax: N/A
Year of Initial Certification: 2000

Sanders Primary Care Clinic
Location: Sanders, AZ
Mailing Address: P.O. Box 457, Ganado,
AZ 86505

Phone: (928) 688-2506
Fax: (928) 688-4471
Year of Initial Certification: 1997

Sulphur Springs Medical Center
Location: 900 W Scott Street, Willcox,
Arizona 85643
Mailing Address: Same as Above
Phone: (520) 384-4421
Fax: (520) 384-4645
Year of Initial Certification: 2004

Sunsites Medical Clinic
Location: 225 Frontage Road, Pearce,
Arizona 85625
Mailing Address: P.O. Box 186, Pearce,
Arizona 85625
Phone: (520) 826-1088
Fax: (520) 826-1089
Year of Initial Certification: 2004

Wide Ruins Clinic
Location: Wide Ruins, AZ
Mailing Address: P.O. Box 457, Ganado,
AZ 86505
Phone: (928) 652-3231
Fax: N/A
Year of Initial Certification: 1999

Wide Ruins Family Health Clinic
Location: Wide Ruins, AZ
Mailing Address: P.O. Box 457, Ganado,
AZ 86505
Phone: (928) 652-3231
Fax: N/A
Year of Initial Certification: 1999

APPENDIX 2

Phase 1 Interview Guide and List of Experts and Advocates Contacted to Identify At-Risk Populations

Interview Guide

Introduction: Hello, my name is _____ from R&R Partners calling on behalf of the Arizona Department of Health Services. We are conducting a research study to determine the populations who are most at-risk for not receiving information in the event of a bioterrorism attack or public health emergency. This will take about 10 minutes and all answers are confidential. Are you available to help us today?

Yes – Continue

No – Could you recommend someone else in your agency who might be a good contact for this research?

The goal of this research is to identify barriers in communicating with “hard-to-reach” groups during a bio-terrorism attack or public health emergency. By “hard-to-reach,” I am referring to people who may not have easy access to information through TV, radio or newspapers as well as people who may not believe or understand the information provided.

1. To start, can you please identify the role of your organization? (Probe: type of organization, types of services, etc.)

Open ended_____

2. Which community do you serve? (Probe: geography, types of clients)

Open ended_____

3. In general, how would you describe your community? (Probe: What distinguishes your community from other communities in your area, or even across the state?)

Open ended_____

4. In the event of a bio-terrorism attack, or a public health epidemic, which groups of people do you feel would be hardest to reach or most at-risk of not receiving risk communications or alerts? (if necessary, give examples: mentally ill, non-English speakers, homeless, etc.)

Open ended_____

5. In the event of a bio-terrorism attack, or a public health emergency, please tell me which groups of people you think may not understand or believe the information given, and therefore, are at-risk for not following directions.

Open ended_____

6. Now I'm going to go through the list of groups you just gave. For each group, please tell me if you feel procedures for communication are already in place for them in the event of a bio-terrorism attack or public health emergency.

For each group:

Yes___ No___

7. Do you have any other comments or suggestions that you would like to add?

That concludes the questionnaire. Thank you for your participation. Your opinion is greatly appreciated and extremely helpful. If you have any questions, you may contact the Arizona Department of Health Services, Office of Public Health Emergency Preparedness and Response.

(Contact information given upon request).

List of Experts and Advocates Contacted to Identify At-Risk Populations

Agency	Contact Person	Primary Populations Served
Canyonlands Community Health Care	Sarah Allen	Underserved, underinsured, low-income
Community Health Center of West Yavapai	Peggy Nies	Underserved, underinsured, low-income
Maricopa County Department of Public Health	Chris Mahon	Underserved, underinsured, low-income
Mohave County Department of Public Health	Patty Mead	Low income
Sunset Community Health Center	Whitney Simms	Underserved, underinsured
Catholic Social Services Central & Northern Arizona	Paul Marderdam	Underserved, underinsured, homeless
Southern AZ VA Healthcare Systems	Dan Johnston	Veterans
Coconino County Health Department	Lola Riggs	Rural residents
Sunlife Family Health Center	Al Gugenberger	Underserved, underinsured
Intertribal Council of AZ	John Lewis	Native Americans

Agency	Contact Person	Primary Populations Served
Phoenix Area Indian Health Service	Greg Hick	Native Americans
American Red Cross	Betsy Metzger	Those in need of shelter and assistance in the event of an emergency
(AHCCCS) Arizona Health Care Cost Containment System	Frank Lopez	Underinsured, low-income
(DES) AZ Department of Economic Security	David Berns	Developmentally Disabled
Eastern AZ College	Holly Pascoe,	Educational Institution
AZ Statewide Independent Living Council	Tony DiRienzi	Disabled
Area Agency on Aging	Lorraine Stewart	Elderly
Office of Rural Health/University of Arizona	Allison Hughes	Rural and border populations
ADHS Office of Health Systems Development	Patricia Tarango, Office Chief	Underserved, underinsured, rural and border populations
Pinal County Health Department	Andrea Huerta, Special Needs Pops Coordinator	Special populations
ADHS Office of Border Health	Katie Careaga, MHP, Border Epidemiologist	Immigrant and border groups

APPENDIX 3

Phase 3 Interview Guide and List of Key Informants

Interview Guide

Introduction: Hi, my name is _____ and I'm calling from R&R Partners on behalf of the Arizona Dept. of Health Services. ADHS is conducting a research study to determine the populations who are most at-risk for not receiving information in the event of a bio-terrorism or public health emergency. You were recommended (by _____) as someone who would have information about (at-risk group). All information is confidential and your name would be kept separate from your answers.

Do you have about 10 minutes to answer some questions or is there another time that would be convenient for you?

This research is being collected as the first step in developing a communication plan that will include outreach to various populations. This is the third phase of the research project and (at-risk group) has been selected as one of the focuses of the research. After the research is completed, ADHS hopes to work with communities to help ensure all harder-to-reach populations can be reached in the event of an emergency.

1. Do you track or collect data about the prevalence of this group/population in Arizona? In your county or town?
2. Which other agencies serve this group/population?
3. In your opinion, what is the best way to communicate with this group/population to alert them of a bio-terrorism or public health emergency?
4. In the event of a bio-terrorism or a public health emergency, what is the best means to relay information about health-safety? (I.e. newspaper, radio, internet, non-traditional, etc.)
5. Would the members of this group/population need assistance in following directions in the event of a bio-terrorism or public health emergency?
6. Which agency, if any, do you feel is best able to provide this assistance?
7. What other thoughts do you have about communicating with members of this group/population during a bioterrorism or public health emergency?

8. How important do you think using a spokesperson would be to communicate with members of this group/population? Who do you think an appropriate spokesperson would be?

9. In the next phase of research, we may want to conduct focus groups with_____. Do you have suggestions as to how I can recruit members of this group/population to participate?

10. Can you please recommend any other professionals who also serve the_____ who you feel would be helpful in answering these same questions?

That concludes the questionnaire. Thank you for your participation. Your opinion is greatly appreciated and extremely helpful. If you may contact the Arizona Department of Health Services, Office of Public Health Emergency Preparedness & Response (Contact information given upon request).

Key Informants

Group	Contact Person	Agency
Border Populations		
	Katie Careaga	Uni. Of Arizona Office of Border Health
	Jill Depazien	Assistant Dean, Uni. Of Arizona
Deaf and Hard of Hearing		
	Heidi Lervick	Arizona Commission for the Deaf and Hard of Hearing
	Beca Bailey	Arizona Commission for the Deaf and Hard of Hearing
Low Income		
	Arthur Martinez	Community Health Center – El Rio
	Tara Plese	Arizona Association of Community Health Centers
Mentally Ill		
	Cathy Palmer	Mental Health Advocates Coalition of Arizona
	Max Dine	Mental Health Advocate
Native Americans		

Group	Contact Person	Agency
	Andy Lorentine	Bioterrorism Coordinator Tohono O'odham Nation
	Greg Hick	Phoenix Area Indian Health Service
	Alida Monteil and Zeenat Mahal	Intertribal Council of AZ
Rural Residents		
	Sarah Allen*	Community Health Center – Canyonlands
	Leila Barraza	Univ. of Arizona Rural Health Office

* Also provided information and input on Native American and Low Income populations

Phase 4 In-Depth-Interviews Community Leaders of Native American and Border Groups

Introduction

Thank you for coming today. My name is _____. Today we will be talking about health and emergency preparedness and ways that you prefer to receive information. Everything you say is confidential. There are no right or wrong answers, I just want to get your opinions. It is ok to disagree with each other, we want to hear from everyone. Before we get started, let's go around the table and give our first name. As I mentioned I'm _____.

(Complete introductions)

As we talk, I will be referring to "your community" – what is meant by this is specifically the Urban Native community. You, as community leaders have been invited here today for us to determine whether or not the Urban Native community receives information in the same way or differently from the General market or white population. We would like to get your perspective on the attitudes and beliefs of members of your community. If you aren't sure the answer to something, that's ok, just let me know.

General Information Sources

- 1) As a member of _____community, where do you think members of your community typically get local or national news? (probe: TV, magazines, radio, etc.)
- 2) What other sources do you think members of your community typically use to get news (i.e., churches, schools, community centers, internet,)? Could you provide the names of these other sources/places or give an example?
- 3) Do you think that members of your community typically watch *local* TV news or *national* TV news stations? In your opinion, is one a more reliable source of information than the other?
- 4) In your opinion, how reliable do members of your community think newspapers are? How much do you think they trust the information provided by newspapers?
- 5) Of the different sources of information you just mentioned, which source of information do you think members of your community rely on most to get accurate information?

Health Information Sources

- 6) As a member of _____ community, where do you get most of your information regarding health issues? Where do you think other members of the community get this information?
- 7) If members of your community wanted to get health information, for example about flu shots or immunizations for their children, which individuals or agencies do you think they would contact first? Any others?
- 8) As far as you know, have members of your community ever received written materials on health issues (i.e., brochures, mailings, flyers, other)?
 - If yes, please specify the types of materials.
 - Which of these methods seemed like they reached the most members of the community?
 - How could these materials be more effective in getting the health message out?
- 9) Based on your experience, what do you think is the best mechanism to communicate health-related issues to members of your community (i.e., brochures, radio, print, TV., spokespeople, community leaders, health care providers)? Why?

Emergency Information Preferences

- 10) When there is some kind of emergency, even just a weather warning for example, how do you think people in your community get important information?
- 11) If members of your community heard that there was some kind of public health emergency, like a disease outbreak, where do you think they would go for information (TV, radio, community centers, schools, telephone, internet)?
- 12) As a community leader, what would you do?
- 13) What is the primary language spoken in your community? Do you think members of your community prefer information to be communicated in their native language? (probe: verbal vs. written)
- 14) Are there any cultural preferences or distinctions that should be taken into consideration when devising an emergency preparedness plan for your community?
- 15) Are there any cultural preferences or distinctions that should be taken into consideration when devising an emergency preparedness plan for your community?

- 16) How do you think members of your community may feel about having a spokesperson or key community leader communicating emergency public health announcements/messages? If so, who would you suggest as a spokesperson?
- 17) If it were your responsibility to make sure that everyone in your community got information about an emergency and followed the directions, how would you get them the necessary information?

Evacuation

- 18) In the event of an emergency, if members of your community had to evacuate their homes, where do you think they would prefer to go?
- 19) How likely do you think they would be to actually leave their homes? Who may be more willing to go and not to go? Under what circumstances might people not want to leave their homes?
- 20) How close to the most central community center is the nearest hospital, clinic or school? How long does it take to get from the community center to each of those places?

Wrap-Up

Those are all the questions I have for you today. Do you have any questions or comments that you would like to add about anything we talked about?

We may want to conduct a similar meeting with members of the Urban Native American Community – how would you recommend that we go about setting that up?

Thank you for helping us out today. We really appreciate your time and input.

Phase 4 Focus Groups

Urban Native American Community Leaders

Introduction

Thank you for coming today. My name is _____. Today we will be talking about health and emergency preparedness and ways that you prefer to receive information. Everything you say is confidential. There are no right or wrong answers, I just want to get your opinions. It is ok to disagree with each other, we want to hear from everyone. Before we get started, let's go around the table and give our first name. As I mentioned I'm _____.

(Complete introductions)

During this questionnaire, I will be referring to "your community" – what is meant by this is specifically the Urban Native community. You, as community leaders have been invited here today for us to determine whether or not the Urban Native community receives information in the same way or differently from the General market or white population.

General Information Sources

Where do you typically get news? (local or national)? (Probe on TV, magazines, radio etc.)(Probe for specific names of sources)

Let's talk about the different ways that people get information. How many of you watch the local television news stations?

How reliable you think they are? How much do you trust the information provided?

How many of you watch national television news shows? (if necessary give examples: Nightly News, CNN, Fox News)

How reliable you think they are? How much do you trust the information provided. Do you think they are more or less accurate than the local television news?

How many of you read newspapers? Which ones?

How reliable do you think they are? How much do you trust the information provided?

Of the different sources of information we just talked about, which source of information do you think members of your community rely on most to get accurate information?

What other sources do you think members of your community typically use to get news (i.e., churches, schools, community centers, internet)?

Would you name these other sources/places or give examples?

Health Information Sources

As a member of this Urban native community, where do you or other members of this community get information regarding health issues?

If members of your community wanted to get health information, for example, about flu shots or on immunizations for your children, where would they go first? Are there particular agencies they would contact? Any others?

Do members of your community receive written materials on health issues? Are there specific examples? Do you or do they find this information useful?

What forms of written materials do you find most effective?

Emergency Information Preferences

When there is some kind of emergency, even just a weather warning, for example, how do you think people in your community get that information?

If members of your community heard that there was some kind of public health emergency, like a disease outbreak, where do you think they would go for information (TV, radio, community centers, schools, telephone, internet)?

As a community leader, what would you do?

Is the primary language spoken in your community English? Are there others?

Would members of your community prefer information to be communicated in their native language? (verbal or written?)

I'd like us to make a list now of sources of information that you would feel is accurate and some sources you or members of your community might question:

(Using a white board or poster paper, list sources in columns – rotate sources)

Doctor's office or health clinic

Leaders in your community (probe: who are they?)

Arizona Department of Health Services

City Health Department

Local Church or religious organization

Internet

Word-of-mouth (probe – who is a good source, who is a bad source?)

Magazine article
Newspaper article
Local TV News
National TV News
Radio Stations (which ones?)

Are there any cultural preferences or distinctions that should be taken into consideration when devising an emergency preparedness plan for your community?

How do you think members of your community may feel about a spokesperson or key community leader communicating emergency public health announcements/ messages? If so, who would you suggest as a spokesperson for your community?

If it were your responsibility to make sure that everyone in your community got information about an emergency and followed the directions, how would you get them the necessary information?

Evacuation

In the event of an emergency, if members of your community had to evacuate their homes, where do you think they would prefer to go?

How likely do you think they would be to actually leave their homes? Who may be more willing to go and not to go? Under what circumstances might people not want to leave their homes?

What are the most trusted hospitals, schools or centers for people in this community?

Wrap-Up

Those are all the questions I have for you today. Do you have any questions or comments that you would like to add about anything we talked about?

Thank you for helping us out today. We really appreciate your time and input.

APPENDIX 5

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