COMMUNITY AND TRIBAL HEALTH CLINIC EMERGENCY RESPONSE PREPAREDNESS IN NEVADA: 2004 REPORT

Public Health Preparedness
In Collaboration With
Great Basin Primary Care Association

Nevada State Health Division

Department of Human Resources

Kenny C. Guinn, Governor
Michael J. Willden, Director
Department of Human Resources
(4/05)

Alex Haartz, M.P.H., Administrator
Bradford Lee, M.D., State Health Officer
Nevada State Health Division

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Introduction

The state of Nevada is comprised of 16 counties and one independent municipality. The majority of the state's population inhabits Clark and Washoe counties, with the remainder in rural/frontier counties. Additionally, Nevada has a substantial Native American population representing Paiute, Shoshone and Washoe Tribal Nations.

To date, there is no standardization of optimal preparedness for community and tribal federally qualified health clinics (FQHCs). To begin addressing this issue, the Nevada State Health Division (NSHD), Public Health Preparedness (PHP) collaborated with the Great Basin Primary Care Association (GBPCA) to conduct a Community Clinic Emergency Response Needs Assessment. This project established baseline data with respect to public health emergency response capabilities and capacities in community and tribal FQHCs throughout the state of Nevada. In the future, PHP and GBPCA will be able to track progress and disparities over a period of time. The information obtained from this project will be used as a reference on which to base the provision of resources and assistance to each community and tribal FQHCs development of an emergency response plan.

Between May and July, 2004, a 25-question needs assessment survey was distributed via fax, mail, e-mail and site visits to 16 community and 12 tribal FQHCs throughout the state of Nevada. The survey questions were designed to assess critical capacities and provide information for gap analyses for responding to public health emergencies within each of the participating clinics.

Summary of Findings

Observations in this study were consistent with recent findings by a nationwide FQHC survey by the National Association of Community Health Centers, Inc. (NACHC) and the Kansas Health Institute (KHI) Kansas Local Health Department assessment. With respect to FQHC disaster preparedness, the data from this project showed that Nevada's community and tribal FQHCs were in need of inclusion in community emergency response planning and drills, expanded and updated communication capabilities and staff training.[1, 2]

Communications:

While communication capability through landline phones, fax, and Internet access was prevalent, minimal auxiliary communication capability through wireless media, such as two-way radios or cellular phones, was reported. If landlines become unavailable or saturated, combined with the lack of generators and/or other alternate power sources, these clinics may become isolated and inoperable. Cellular phones, satellite phones, and/or two-way radios can be provided with a capital investment or by arrangements with local emergency planners.

Appropriate communication capabilities, such as high-speed Internet access and videoconferencing, lend themselves to expanded distance-learning opportunities. A wireless media delivery system is already utilized by most public and private education providers, and public health preparedness training and continuing education can be provided through these wireless media to all community and tribal FQHCs with a capital investment.

Training:

Low overall prevalence and considerable variability in public health emergency preparedness provider training are indicators of sub-optimal emergency response preparedness. The NACHC study reports that 94% of nationwide FQHC respondents indicate that training is integral to improving their disaster preparedness.[1] Advancements in provider training and education can be immediately addressed with appropriation of resources for specific educational needs.

Additionally, by establishing a credentialing system (identifying and providing accredited courses) and maintaining enrollment records, Nevada will be able to improve provider public health emergency preparedness in community and tribal FQHCs.

Training can be achieved through upgraded communications capabilities and the subsequent utilization of a variety of delivery systems. The 2003 KHI assessment reports that education and training as one of the most substantial preparedness improvements made at Kansas local health departments.[2]

Community Emergency Response:

Overall, community and tribal FQHCs reported being detached from local emergency planning efforts. Only approximately one-third, 32%, were aware of their community's emergency response plan and 62% did not participate in local emergency planning.

Less than one-fifth, 18%, of clinics participated in community disaster drills. Community and tribal FQHC involvement is essential to public health emergency planning. These clinics are critical providers for their communities and can be the only source of immediate medical resources at times.

Fundamental emergency medical response equipment such as an AED or a Lifepak 10 emergency defibrillator should be available at all clinics. Over one-third, 32%, of the clinics reported not having either device at their facility.

The utilization of telemedicine should be expanded throughout Nevada's rural/frontier counties. Telemedicine includes videoconferencing and web conferencing. Used in conjunction with digital camera photography, telemedicine brings typically unavailable expertise to rural/frontier clinics and gives those clinics access to specialists and additional services, such as mental health.

Appropriation of funding should be sought for immediate short-term investments, such as communications and emergency medical equipment, which in turn enhances options for ongoing investments, including staff training and components of community emergency response planning.

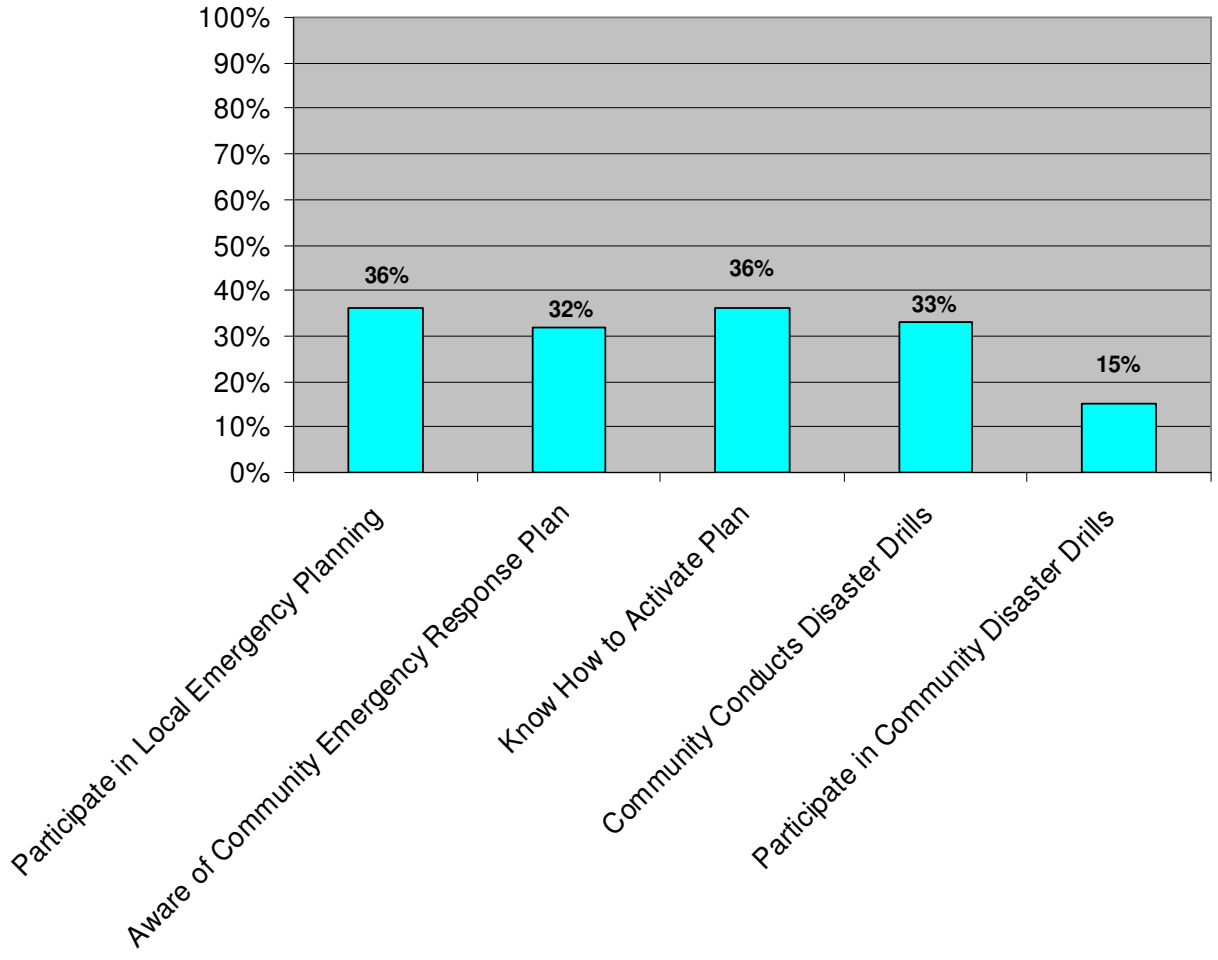
RESULTS

Twenty-eight clinics participated in the study: 16 community health clinics and 12 tribal health clinics. Close to two-thirds, 57%, of the clinics are located in rural/frontier Nevada.

Public Health Emergency Response Readiness

All respondents identified an appropriate health district for reporting a public health emergency. Awareness of a community emergency response plan and knowledge of how to activate such a plan was more sporadic, at 32% and 36%, respectively. One-third of clinics reported that their community conducts disaster drills, but less than half of those clinics, 46% (15% of the total sample), participate in those drills (Figure 1).

Figure 1
Community Emergency Response Awareness



Ninety percent of clinics reported having procedures for identifying and tracing contacts of persons with communicable disease. Most respondents, 75%, were aware of a public health physician or nurse in their communities and more than half, 53%, were aware of a public health clinic. Awareness of specific public health resources, such as environmental health staff or a public health/agricultural veterinarian, was substantially less, at 32% and 21%, respectively.

Only 21% of clinics reported having an assigned decontamination area and 35% had isolation accommodations. Negative pressure rooms were nearly non-existent, at 4% among participating clinics.

One-quarter, 25%, reported the existence of Mutual Aid Agreements (MAA) or Memorandums of Understanding (MOU) with other clinics/agencies in the community or other jurisdictions to secure various resources.

Most, 68%, reported access to a hospital/long-term acute facility within 50 miles and 69% had patient transport capability. Almost two-thirds, 56%, identified a helicopter landing site, either a heliport or a designated location in the area with no obvious obstructions.

Half of the respondents reported access to immediate additional security; this security includes a sheriff's department, fire department and tribal police.

Several clinics described available resources that were specific to their community, such as 24 hours/7 days per week Emergency Medical Services (EMS) and a Tribal Emergency Response Commission.

Staffing

Only 7% of clinics reported the capacity to operate on a 24-hour basis with existing staff; additionally, only 14% reported a system to increase staff in time of emergency.

All of the clinics had at least one staff member who was knowledgeable in vaccine administration, 96% have two or more. Most clinics, 82%, reported employing one to four staff members who regularly administer vaccine as part of their job. Less than half, 41%, had an assigned infection control officer.

Approximately two-thirds of clinics reported providing mental health services, translators and a pharmacist (62%, 59% and 61%, respectively).

Communications

Key findings with respect to communications capabilities indicate that community and tribal FQHCs rely heavily on landline phone services, Internet, and fax (100%, 93% and 86%, respectively). Approximately two-thirds, 64%, of those clinics with access to the Internet reported having high-speed access (Figure 2).

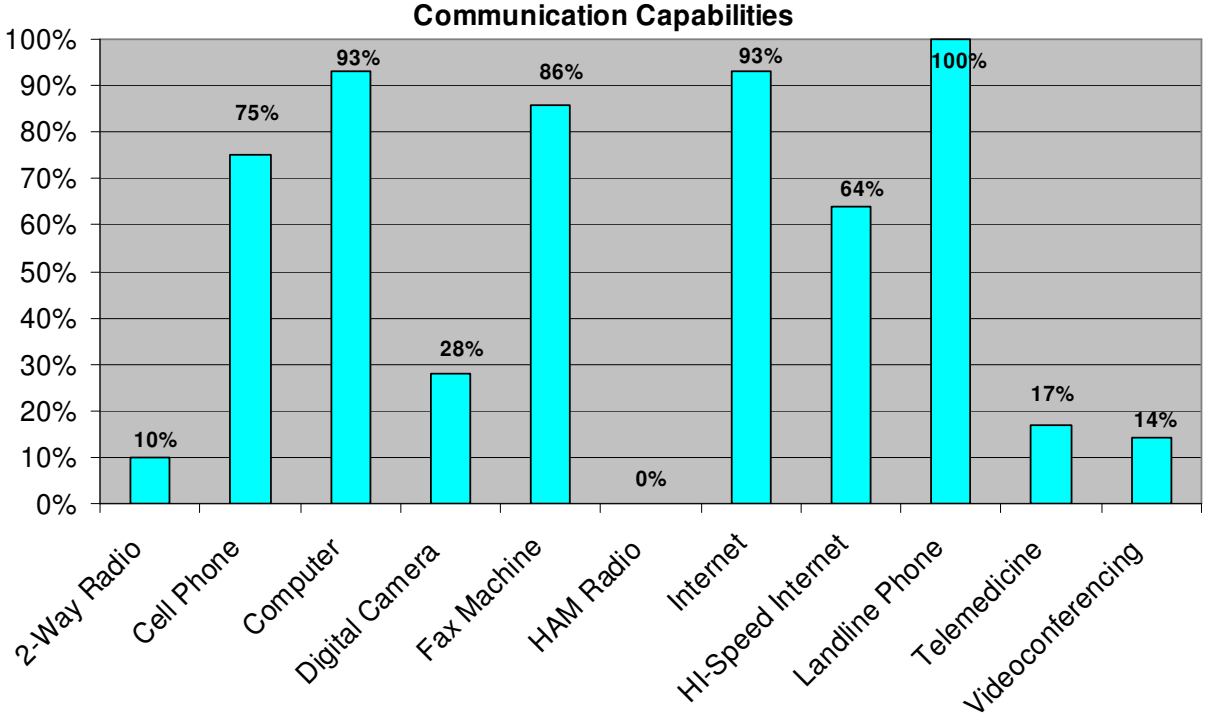
Many respondents believed redundant communication capabilities were deficient: 25% were without access to cellular phones and only 10% had two-way radios. Several communities shared in discussion that cell phone service was unavailable in their area. None of the clinics reported HAM radio capability. Telemedicine was utilized by 17% of the clinics and 14% had videoconference capabilities. Less than one-third, 28%, reported having a digital camera (Figure 2).

Only 11% of clinics had an alternate communication plan. Local mechanisms which could provide communities with immediate information included: radio and television stations, EMS radio, community postings and a tribal phone system intercom.

Less than half, 43%, reported receiving Nevada Health Alert Network (NVHAN) notification by e-mail or fax.

Generators and/or other alternate power sources were available at only 10% of the facilities.

Figure 2
Communication Capabilities



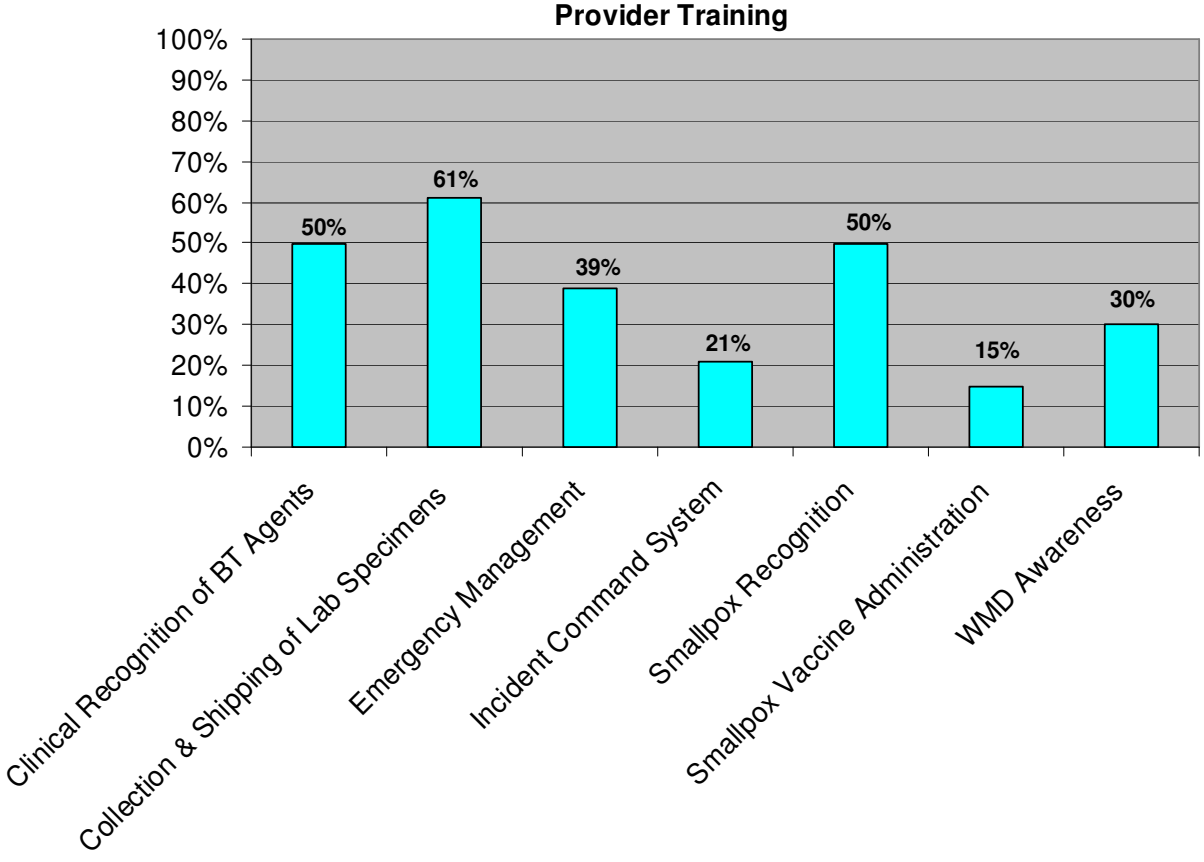
Training

Seven categories of public health preparedness training were measured. Respondents were asked to provide the number of staff trained in each area. Half of the respondents reported employing zero staff members with training in the clinical recognition of bioterrorism agents; only 21% reported having one or more staff members having received Incident Command System training and 39% with one or more staff trained in emergency management.

Of the 28 participating clinics, 50% reported having staff with training in smallpox recognition. Of those, only 30% (15% of the total sample) reported having staff with smallpox vaccine administration training.

One-third, 30%, of clinics maintained staff with Weapons of Mass Destruction (WMD) awareness training and just over two-thirds, 61%, had staff with training in the collection and shipping of lab specimens (Figure 3).

Figure 3
Provider Training

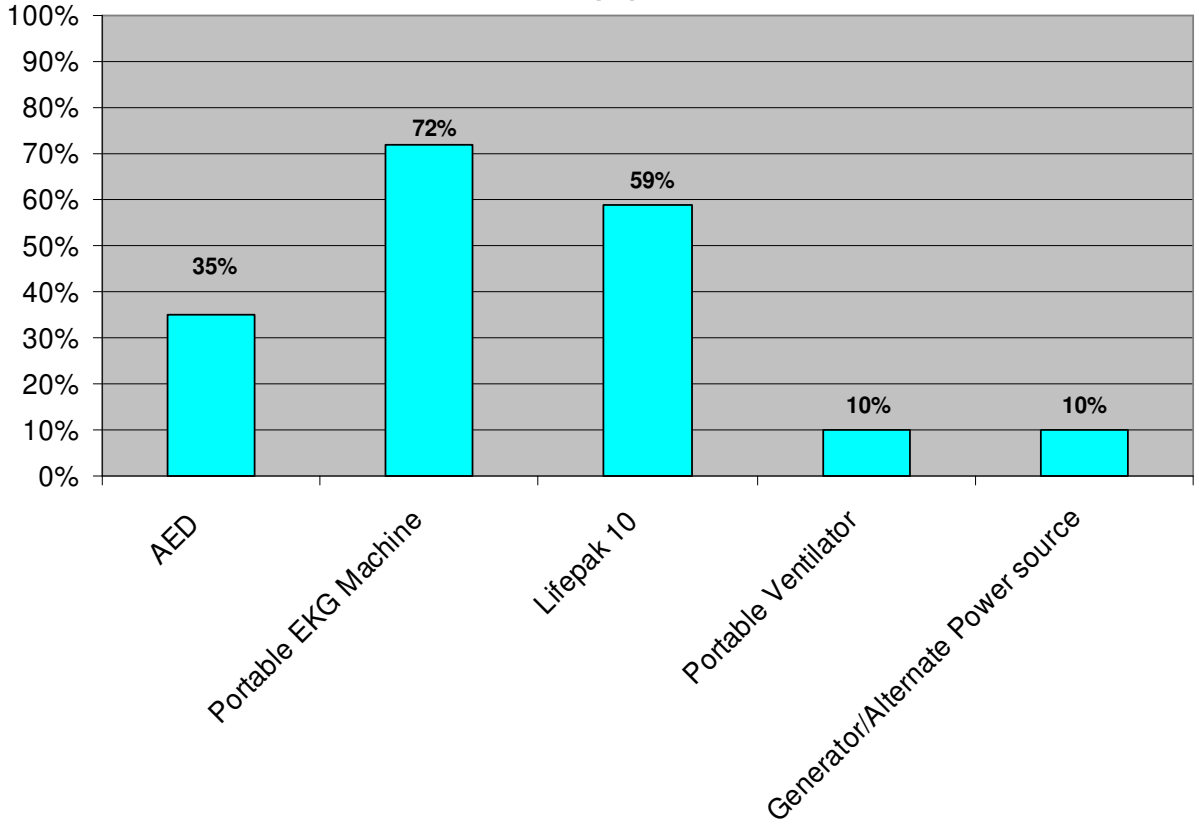


Laboratory Capability/Clinical Equipment

Most clinics, 82%, reported cold storage capability, defined as at least 0.6 cubic feet of refrigerator space at 38-46 degrees F (2-8 degrees C), and 90 % had secured pharmaceutical storage. Clinical emergency equipment is reported variably among clinics: 35% have an Automated External Defibrillator (AED); 59% had a Lifepak 10 Defibrillator; and 72% had a portable EKG machine (Figure 4).

Only 10% reported having a portable ventilator and, as previously mentioned, generators and/or other alternate power sources were also present at only 10% of facilities (Figure 4).

Figure 4
Clinic Equipment



Overall, clinics relied on in-house specimen collection and outsourcing for laboratory analysis (Figure 5 and Figure 6). In discussion, several respondents stated a three to six-day turnaround time for receiving outsourced laboratory results.

Figure 5
Laboratory Specimen Collection Capability

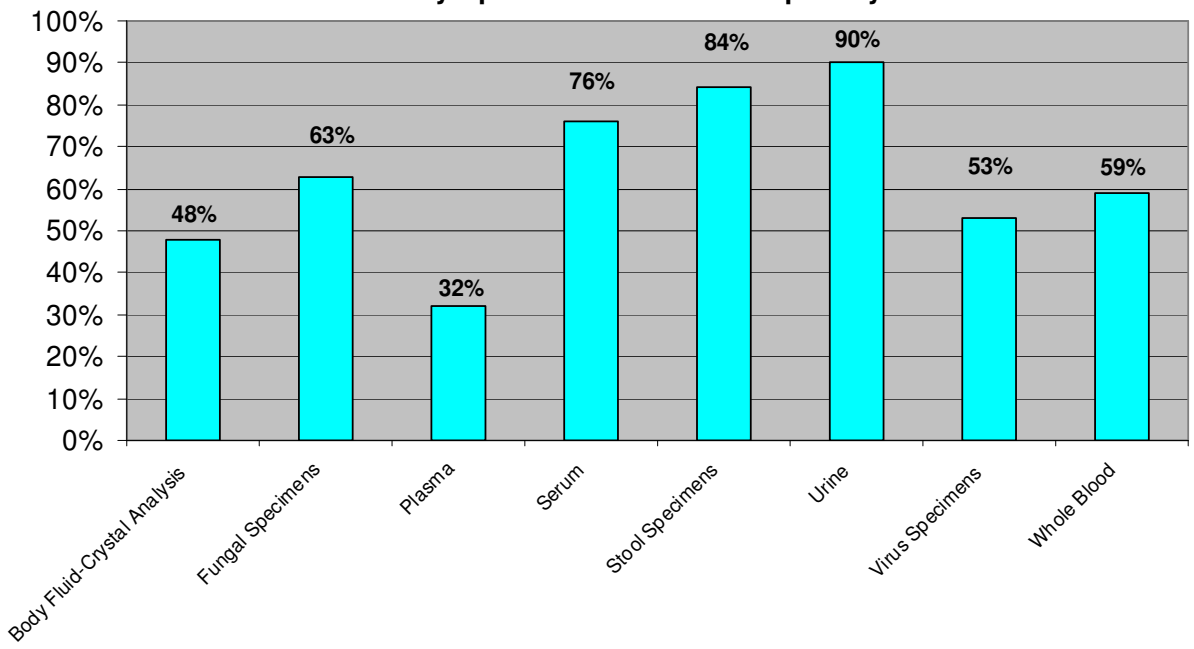
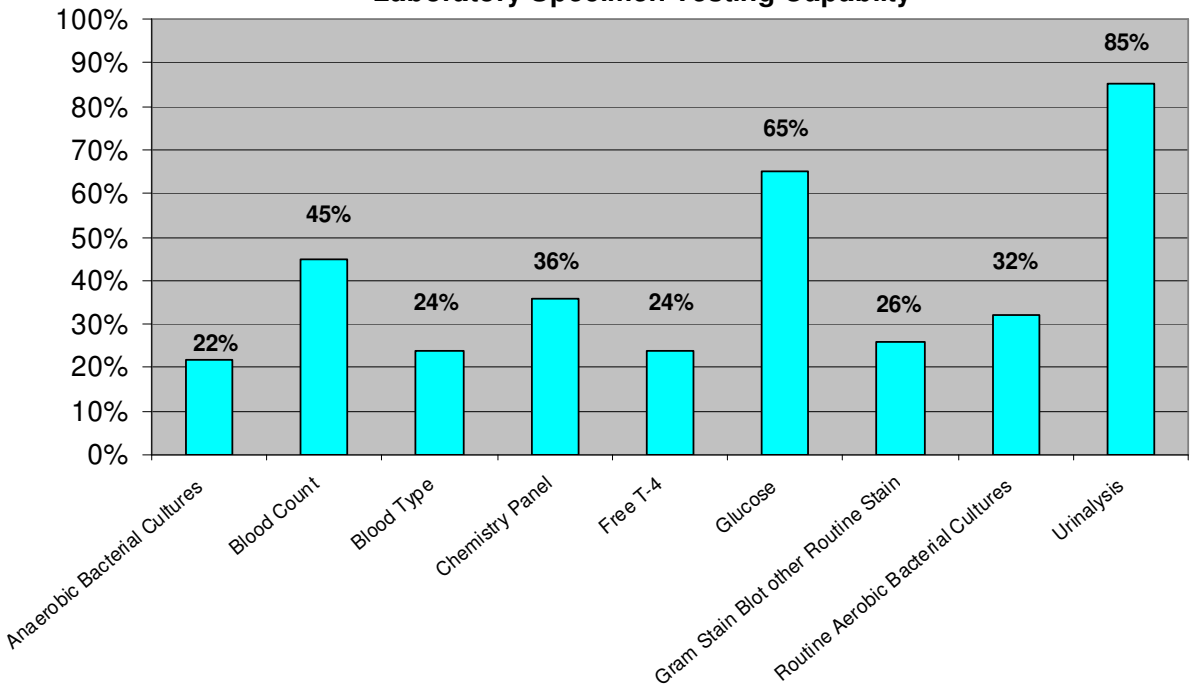


Figure 6
Laboratory Specimen Testing Capablity



RECOMMENDATIONS

Below are recommendations for improving public health emergency response in Nevada's community and tribal clinics:

- Using this present study as a baseline measurement, establish quantitative standards for community and tribal FQHCs; then, administer the Community Clinic Emergency Response Needs Assessment survey again in 12 to 18 months.

- Allocate resources and funding to improve Internet connectivity (high-speed) and provide redundant communications via wireless media such as cellular phone, two-way radio, or satellite phone for communities without cellular service. Communications capability can also be expanded by identifying resources in the community and incorporating them into emergency response plans.

- Continue offering training opportunities and develop tracking and/or credentialing of trained staff; standardize criteria for course offerings.

- Identify and appropriate funding/resources to make basic emergency response equipment available within all community and tribal FQHCs, specifically AEDs or Lifepak 10 emergency defibrillators.

- Identify and appropriate funding/resources for portable ventilators. This critical care equipment should be made available at the local FQHC or accessible within the community.

- Identify and communicate redundant laboratory testing resources and protocols for community and tribal FQHCs in times of public health emergencies.

- Integrate and expand the utilization of telemedicine in order to provide additional consultative resources for patient treatment and boost mental health provider capabilities and capacities.

- Consider incorporating local spiritual leaders and faith-based community resources into the mental health response to a public health emergency.

- Contact local emergency planning committees and promote integration of community and tribal FQHCs into planning and drills.

- Invite clinic staff to observe and participate in NSHD PHP exercises.

ACCOMPLISHMENTS

According to the NACHC study, 26% of nationwide FQHCs receive Health Alert Network notification in their respective states; in Nevada, those clinic recipients number 43 %.[1] Since the present study was performed, all respondents, or their designee, have been added to the NVHAN.

The U.S. Department of Health and Human Services, Office of Rural Health Policy, sponsors a Rural Access to Emergency Devices Grant Program. NSHD PHP is presently working with grant program participants, NSHD Emergency Medical Services and the Nevada Office of Rural Health, to provide AEDs to rural/frontier community and tribal FQHCs identified in this study.

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1. Subramanian, MD, MPH, Asha & McKinney, Dawn; The National Association of Community Health Centers, Inc. Special Topics Brief #4 *Ready or Not? Two Years After September 11th Health Centers Work Steadily to Prepare for Future Disasters* March 2004

2. Pezzino, MD, MPH, Gianfranco & Velasco, Marc J., Starrett, MHA, Barbara E. LaClair, MHA, Barbara J.; *Bioterrorism and Emergency Response Preparedness of Local Health Departments in Kansas: 2003* Kansas Health Institute July 2004