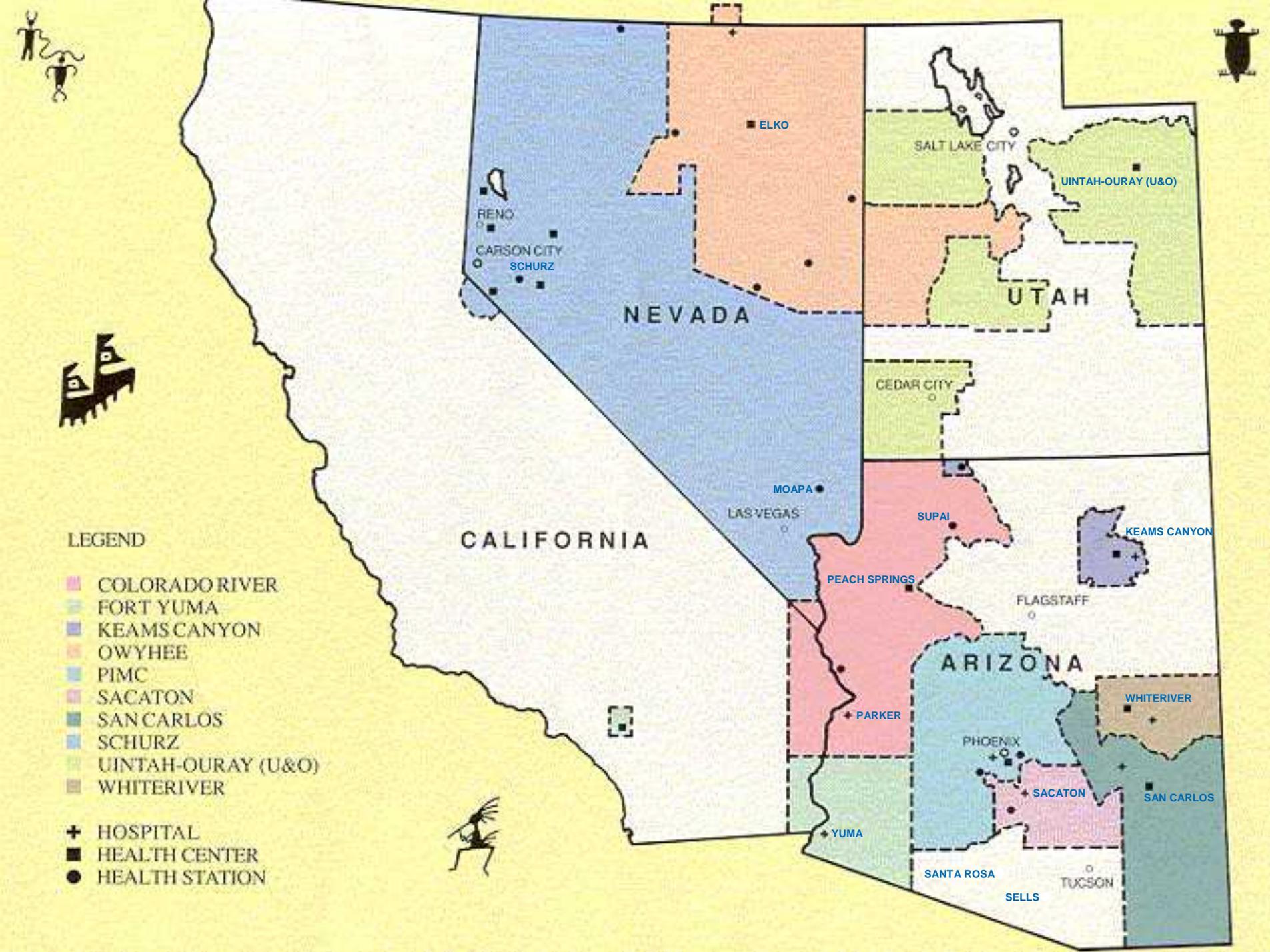


A Viral Hepatitis Prevention Program For Higher Risk American Indian Individuals

**Linking Laboratory Surveillance, Primary Care Medical
Programs, And Community-Based Activities**

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PIMC

- 127-bed hospital
- Over 200,000 outpatient visits annually
 - Over 67,000 visits in ER
- Primary care and referral services

- Patient population
 - ~69,000 people
 - Hepatitis C prevalence among women in routine prenatal care = 3.1% [1.7%–5.0%]

Project Description:

- Case identification:
 - Laboratory surveillance of hepatitis and sexually transmitted diseases,
 - Encouraging health care provider referral,
 - Networking with community-based PHN programs
- Patients received
 - comprehensive risk factor assessment
 - prevention counseling
 - testing and referral for additional services
- Co-location of VHIP staff with PCP
- Project year 2004

Demographic Characteristics Of The Population Identified by or Referred to the VHIP

	N	Percent or Mean (\pm SD)
Age (years)	856	27.8 (\pm 9.4)
Gender (Female)	593	69.3%
Alcohol abuse	104	12.1%
Any substance abuse	48	5.6%
Specific IV Drug use	14	1.6%
Blood Transfusion	0	0
Dialysis	5	0.6%

Estimates Of Hepatitis And Sexually Transmitted Disease Burden

	N	Percent or Mean (\pm SD)
Hepatitis C by 2nd Gen assay	46/652	7.1%
Hepatitis C confirmed (EIA plus confirmation)	35/646	5.4%
Hepatitis B surface Antibody	26/93	28.0%
Anti Hepatitis B core Ab	2/12	16.7%
Calculated natural infection rate of population		4.7%
Calculated immunized rate of population		23.3%
Hepatitis A Total Antibody	53/91	58.2%
HIV	9/640	1.4%
Gonorrhea	128/798	16.0%
Chlamydia	528/798	66.2%
Syphilis (RPR)	54/744	7.3%

Relationship Between Selected Risk Factors And Hepatitis C

Risk factor	Odds ratio (95% CI)	P
Alcohol abuse	7.54 (3.45, 16.24)	<0.0000
Any Non-Alcohol substance abuse	10.47 (4.27, 24.40)	<0.0000
Specific IV Drug use	25.07 (5.89, 108.65)	<0.0000
Chlamydia	0.73 (0.35, 1.54)	NS
Gonorrhea	0.80 (0.25, 2.54)	NS
Syphilis (RPR)	2.79 (1.54, 5.05)	<0.001

Logistic Regression

Risk factor	Odds Ratio		P
	Odds ratio (95% CI)		
Alcohol abuse	5.88	(2.78, 12.74)	<0.000
IV drug use	12.48	(3.18, 48.89)	<0.000

Estimates Of The Opportunities For Immunization

- 4/6 (66.7%) hep C + vs. 47/83 (56.6%) hep C - had evidence of immunity to Hepatitis A.
- 4/7 (57.1%) hep C + vs. 18/81 (22.2%) hep C - had evidence of immunity to Hepatitis B.
- If these estimates are substantiated, roughly 40% of people would benefit from immunization against hepatitis A and 40 to 80% would benefit from immunization to Hepatitis B.

Barriers/Weaknesses

- Case identification
 - Clinician awareness and participation minimally affected by co-location
- Risk reporting
 - Need for common definitions, self reporting
- Testing
 - Laboratory panels based on acute disease identification
- Immunization
 - Patient education, delivery

Successes/Strengths

- Hepatitis C rate ~ 2 X that of a “usual” risk group
- Estimation that a relatively high proportion of higher risk people would benefit from immunization against viral hepatitis
 - provide 242 doses of hepatitis A and hepatitis B vaccine
- Anecdotal
 - successful patient education
 - increased provider awareness

Practice Recommendations

Hepatitis testing and prevention interventions should be given to all patients with:

Any non-alcohol substance abuse

Syphilis

HIV

Alcohol abuse - > 35 years*

Universal hepatitis testing for all at-risk patients, aggressive vaccination, and build a knowledge base on which to judge the role of targeted testing.

Lessons Learned

- 1) Higher risk individuals can be identified by linking laboratory surveillance, primary care medical care electronic health information, and community-based Public Health Nursing programs.
- 2) Among these higher risk individuals, significant opportunities exist for prevention of hepatitis through education and immunization.
- 3) To effectively target interventions, further development of linkages with medical and community programs and improvements in risk assessment and stratification will be needed.