

CROSSWALK ANALYSIS OF COMMUNITY PARAMEDICINE PROGRAM ACTIVITY AND COUNTY HEALTH ASSESSMENTS & IMPROVEMENT PLANS IN ARIZONA

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The number of fire-based and non-fire-based EMS agencies offering community paramedicine (CP) services is increasing across the United States. The services offered and the health conditions being targeted by EMS agency vary. How closely these CP targeted health conditions and services correspond with health priorities identified by county health departments is also unclear.

OBJECTIVES:

- To analyze the CP program attributes and distribution of Arizona EMS agency CP programs.
- To identify health conditions targeted and services offered by Arizona CP programs.
- To compare health conditions targeted by Arizona CP programs with health priorities of county health departments.

METHODS:

In January 2015, the Arizona Department of Health Services (Department) surveyed 194 fire-based and non-fire-based EMS agencies, asking several CP attribute questions. For purposes of this abstract, the following attributes are listed: Program status; Communities Served; Counties Served; and Targeted Health Conditions.

The results were grouped by CP program status, fire-based and non-fire-based agency, and county of operation into an aggregate data matrix. A separate profile of each EMS agency's survey results was created (Figure 1).

Each Community Health Assessment (CHA) and Community Health Improvement Plan (CHIP) for all 15 Arizona counties were analyzed to identify priority health needs and identified health needs.

A crosswalk analysis of the aggregate data matched health priorities and concerns in the 15 CHAs and CHIPs with health conditions targeted in each EMS agency's CP program (Table 2). The crosswalk tool included clickable fields that displayed the Figure 1 agency profile information when a health priority was matched with a CHA or CHIP health priority.

Table 1. Aggregate Data Matrix

SURVEY INDICATORS		CUMULATIVE TALLY (N = 58 RESPONDENT AGENCIES/194 TOTAL AGENCIES = 30% RESPONSE RATE)																							
		AGENCY SERVICE TYPE						COUNTY/TRIBAL LAND (Count does not equal N value as some agencies cover more than one county/Navajo Nation)																	
		Non-Fire Based	%	Fire Based	%	Total	Total %	Apache	Cochise	Cocconino	Gila	Graham	Greenlee	La Paz	Maricopa	Mohave	Navajo	Pima	Pinal	Santa Cruz	Yavapai	Yuma	Navajo Nation	County Total	County %
Program Status	Operational Status	0	0%	6	11%	6	10%								2	1		2	1	1				7	12%
	Pilot Status	2	3%	6	10%	8	14%			1					2			2			4			9	15%
	Planning/Development Status	4	7%	21	36%	25	43%		3	3					4	5	2	2		1	6	1	1	26	45%
	TOTAL (PROGRAM ACTIVITY ONLY)	6	10%	33	57%	39	67%	0	3	4	0	0	0	0	8	14	2	4	3	2	10	1	1	42	75%
Cases Treated	High Risk Use/Unmet Needs	1	2%	4	7%	5	9%			1					1			1	1		1			5	9%
	High Risk Patients (CHF/COPD/Chronic Diseases/Pulmonary)	3	5%	15	26%	18	31%		2	2					2	1		2	1	2	6	1		19	34%
	Elderly Care/Fall Prevent	0	0%	3	5%	3	5%								1					1		1		3	5%
	Septic Prevention/Injury & Wound Care/Low Acuity Patients	2	3%	7	12%	9	16%			1						2			1		3			9	16%
	Behavioral Health/Substance Use Addiction/Psychiatric Intervention	1	2%	4	7%	5	9%			1					3			1	1					6	11%
TOTAL (PROGRAM ACTIVITY ONLY)	7	12%	33	57%	40	70%	0	2	5	0	0	0	0	9	1	0	4	4	3	12	2	0	42	75%	
Services Provided	Rx Counseling/Reconciliation/Patient Education/Condition	2	3%	9	16%	11	19%		2	2						1		1	1	1	4			12	21%
	Welfare Visits/Equipment Needs/Home Hazard Check	2	3%	11	20%	13	23%		2	1					1	1		1	1	1	3			14	25%
	Post-Hospital Discharge & Post-911 Follow-Up/911 Services	1	2%	11	20%	12	21%			1					3			2	2	2	1	1		12	21%
	Comm. Svcs. Refer./FCP/Contact Family/Alternate Dest./Priority Dispatch/Log	1	2%	8	15%	9	16%			1					2	1		1		2	2			9	16%
	Behavioral Health Assistance/Admission Assistance	0	0%	4	7%	4	7%											1	1					5	9%
	General & Disease-Specific Health Assessments/Monitoring/Labs	1	2%	10	18%	11	19%			1					3			1	2	1	4			12	21%
Law Enforcement Support/Prisoner Population Assistance	1	2%	1	2%	2	4%			1					1			1						3	5%	
TOTAL (PROGRAM ACTIVITY ONLY)	8	14%	54	94%	62	108%	0	4	7	0	0	0	0	13	23	0	8	8	7	16	1	0	67	120%	

Figure 1. Sample EMS Agency CP Profile

AGENCY INFORMATION	
EMS Agency Name:	Chandler Fire Health and Medical Department
Main URL Address:	http://www.chandleraz.gov/default.aspx?pageid=900
CIP Program URL Address:	
Contact Person Name	Val Gale
Contact Person Email	Val.gale@chandleraz.gov
Contact Person Phone No.:	480-782-2114
Community Integrated Paramedicine Program Status	
X	Operational Status
	Pilot Status
	Planning/Development Status
	No Program
Community Integrated Paramedicine (CIP) Program Description	
CIP Program Start Date:	1/12/2015
County Served by your CIP program:	Maricopa
Communities served by your CIP program:	Chandler
CIP program operating hours:	Monday - Friday, 07:00 to 18:00 Hours
Health conditions targeted by your CIP program:	CHF, COPD, Diabetes, Falls (to be expanded as the program progresses)
Services provided by your CIP program	General/Compreh. Health Assessment, Disease-Specific Assessments, Fall Risk Assessments
How services are accessed for your CIP program:	High 911 Users, Crew Referrals, Pilot with Payor Groups for Their High Risk Patients
CIP program dedicated phone number (if any):	480-782-2134
Partnering agencies/institutions:	None Right Now
CIP Program funding mechanism:	Self-Funded by the City of Chandler

Table 2. Section of Crosswalk Tool

COUNTY HEALTH AREAS	MARIKOPIA COUNTY 2012-2017 COMMUNITY HEALTH ASSESSMENT/IMPROVEMENT PLAN (FROM ADHS WEBSITE) & 2015 COMMUNITY INTEGRATED PARAMEDICINE SURVEY CROSSWALK															
	Diabetes	Chronic Respiratory	Cardiovascular Diseases	Low Acuity Medical	Substance Abuse	Mental Health	Wound Care	Health Risk Assessment	Health Promotion	Patient Education	Post-Hosp Care	Patient Navigation	Rx Compliance	Injury Prevention	Lab Profiles	Geriatric Focus
Access to Healthcare				O/P							O/P/D	P				
Cardiovascular Health			O													
Diabetes	O/D															
Lung Cancer																
Obesity																
Access to Healthful Foods																
Aging Problems																D
Alcohol/Drug Abuse					D											
Alzheimer's Disease																
Breast Cancer																
Child Abuse and Neglect																
Chronic Lower Respiratory Diseases/Lung Disease		O/D														

RESULTS:

Fifty-eight (38%) responses were received, of which 39 (67%) indicated some level of CP activity (operational, pilot, or planning/development status).

Thirty-three (85%) of the 39 agencies were fire-based, of which 6 were in operational, 6 in pilot, and 21 in planning/development status. Of the 6 non-fire-based agencies, 2 were in pilot and 4 in planning/development status (Table 1).

Of the 39 EMS agencies, 45% listed “high-risk-patients/CHF/cardiac/chronic diseases/ pulmonary;” and 23% identified “sepsis prevention/injury & wound care/ low acuity patients” as targeted health conditions (Table 1).

The crosswalk tool (Table 2), using one county’s results, identifies CP programs matching county priority health priorities (e.g., Diabetes and Alcohol/Drug Abuse) from the county’s CHA and CHIP. Other counties showed similar results.

The grey-shaded cells indicate matches with a county’s health priorities and targeted health conditions of an EMS agency CP program (Table 2). Clicking the cell displays the EMS agency’s profile (Figure 1).

CONCLUSION:

The survey/crosswalk enables EMS agencies and county health departments to collaborate on CP programs to meet their mutual community health needs.

EMS agencies with CP programs at any status level can use the crosswalk to tailor their programs to coincide with health priorities identified by their county health department. County health departments can use the crosswalk to identify EMS agencies with CP programs targeting their health priorities. Both facilitate collaboration that promotes public health.