Service utilization among people with suicidality seen by an urban mobile crisis team

Matthew L. Goldman, MD, MS

Background

- In 2017, over 47,000 Americans died by suicide,[1] including approximately 80 annually in San Francisco
- Mobile crisis (MC) services have been promoted by leading national models for suicide prevention but little is known about best practices:
    - Have been shown to reduce psychiatric inpatient utilization and health system cost
    - A record review of MC visits revealed that suicidal crisis was a common presentation[2]
- There is an urgent need for expanding the evidence base for suicide prevention by MC teams, which are routinely caring for people at high risk of suicide

Objective

- Describe patient population seen by SF Comprehensive Crisis Services (CCS), an SF DPH civil service provider of MC services for adults and children in SF **(Figure 1 & Table 1)**
- Identify basic trends in workflow (who is/isn't seen, where they go and why) to coordinate with clinics & hospitals
- Inform the development of suicide prevention best practices to be adapted in MC settings

Study Methods

- Design: Retrospective cross-sectional cohort analysis
- Sample: Patients with a CCS field visit from 1/2016 to 6/2019
- Data Source: SFCCS manual crisis logs (N= 2,581) and Avatar electronic health records (N= 2,097)

Results

- 97.4% of field visits to children are successful at evaluating the child, whereas nearly 1 in 4 field visits for adults are declined or the individual cannot be found **(Table 2)**
- People seen for danger to self were placed on a 5150/5585 at high rates: 39.6% for adults and 37.9% for children **(Table 3)**

Fig 1. CCS cases per 10,000 population, by zip code

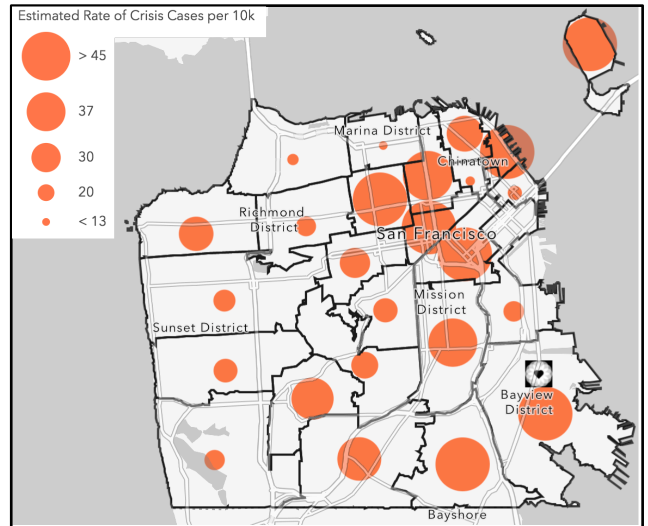

Table 1. Demographics of patients from attempted CCS field visits (data from crisis logs)

Characteristics	N (%)
Female	1,152 (44.8%)
Male	1,373 (53.4%)
Transgender/Non-Binary	45 (1.8%)
Caucasian	830 (33.7%)
Black/African American	521 (21.1%)
Asian/Asian American	390 (15.8%)
Hispanic/Latino American	468 (19.0%)
Other race	256 (10.4%)
English speaker	2,095 (96.6%)
Non-English speaker	174 (8.0%)
Housed	1,614 (78.0%)
Unstably housed	455 (22.0%)
Public insurance	1,046 (54.3%)
Private insurance	390 (20.2%)
Other/unknown insurance	492 (25.5%)

Implications and Future Directions

- What factors might explain which adults were or weren't seen?
  → ***Inform targeted engagement and follow-up protocols***
- Where are clients being seen before getting referred to CCS?
  → ***Strengthen referral network with city partners***
- Where do people go after a CCS episode? Especially for DTS not on 5150? Analyze Avatar episodes post-CCS visit to look at:
    - Frequency of post-crisis inpatient admissions
    - Repeat crisis service utilization (CCS, Westside, PES)
    - Successful linkage to outpatient MH services

→ ***Identify needs for post-CCS follow-up and implementation of suicide prevention best practices***

Table 2. Field visit outcomes

Population	Seen	Not Seen	Total
	2,216	**365**	**2,581**
Child	1,140 (97.4%)	30 (2.6%)	1,170
Adult	1,076 (76.3%)	335 (23.7%)	1,411

Table 3. 5150 result for evaluations of patients reporting Danger to Self

	Reason for Evaluation	5150/5585 for DTS (%)	5150/5585 for Other (%)	No 5150/5585 (%)	TOTAL
Adults (5150)	Danger to Self	212 (39.6%)	17 (3.2%)	306 (57.2%)	535
	Other	12 (1.4%)	173 (20.5%)	658 (78.1%)	843
	TOTAL	224 (16.3%)	190 (13.8%)	964 (70.0%)	1378
Children (5585)	Danger to Self	314 (37.9%)	14 (1.7%)	501 (60.4%)	829
	Other	14 (4.8%)	74 (25.3%)	205 (70.0%)	293
	TOTAL	328 (29.2%)	88 (7.8%)	706 (62.9%)	1122

1. Hedegaard H, Curtin SC, Warner M. NCHS Data Brief No. 330: Suicide Mortality in the United States, 1999-2017 [Internet]. 2018 Nov. Available from: https://www.cdc.gov/nchs/products/databriefs/db330.htm.

2. Landeen J, Pawlick J, Rolfe S, Cottee I, Holmes M. Delineating the Population Served by a Mobile Crisis Team: Organizing Diversity. Can J Psychiatry. 2004 Jan 1;49(1):45–50.