988 Geolocation Forum
May 24, 2022, 9:30a – 4:00p

Federal Communications Commission
U.S. Dept. of Health and Human Services
U.S. Dept. of Veterans
Outline

• Why is 911 Relevant to 988?
• Evolution of the Nation’s 911 System
• 911 Geolocation Information: Routing the Call and Locating the Caller
• Wireline E911: Routing and Location
• Wireless E911: Routing and Location
• Recent Developments in Wireless E911 Location
• Next Generation 911
• Comparing 911 and 988
Why is 911 Relevant to 988?

- Understanding how geolocation information is obtained and used in a 911 call provides insight into the complexities of providing location information when a caller dials 988.

- Some 911 capabilities could serve as a model for the Lifeline as it expands its capabilities.

- However, there are key distinctions between 911 and 988 services, both in terms of the underlying network infrastructure and the services provided.

- Future interaction between 911 and 988 will be an important issue going forward – including the potential for interoperability between the two systems.
911 Basics

• 911 is the public emergency call number in the US
• 220-240M 911 calls a year (75-80% are wireless)
• Over 5500 911 Public Safety Answering Points (PSAPs) or Emergency Communications Centers (ECCs) receive 911 calls
  • Mostly operated by counties and municipalities
• FCC regulates 911 capabilities of commercial providers that the public uses to call 911 (e.g., routing to the correct PSAP; provision of location information with the 911 call; text to 911)
• FCC does not regulate PSAPs/ECCs (e.g., 911 call-handling or dispatch)
The Nation’s 911 System: Evolution of 911 Services

1968:
Basic 911
- Copper Land Line
- Analog Technology

1980s:
Enhanced 911 (E911)
- Automatic Number Identification (ANI)
- Automatic Location Information (ALI)

1990s:
Wireless E911
- Phase I: Routing
- Phase II: Location Information

2000s:
Voice-over-IP (VoIP)
- Extension of 911 Requirements to VoIP

2010s:
Next Generation 911, Text-to-911
- IP-Based Technology
- Improved Location Accuracy
911 Geolocation: Routing the Call and Locating the Caller

In 911, geolocation is used to address two distinct issues:

• Where to **route** the call (i.e., identify the correct PSAP to answer the call)

• Where is the caller’s **precise location for dispatch** (i.e., identify the location where first responders should go)

• For wireline 911 calls, routing and location are simple – the caller’s telephone number is associated with a fixed location.

• For wireless 911 calls, routing and location are more complicated – the caller could be anywhere.
Wireline E911: Routing and Location Information Data Path (Legacy Architecture)

Looks at phone prefix and determines the correct PSAP to route call

= Voice Path
= Data Path

Location information (ALI) and emergency response information stored in a tabular database MSAG

Wireless E911: Routing and Location

• Wireless 911 calls are generally routed to PSAPs based on the location of the cell tower that transmits the call.

• FCC rules also require wireless carriers to transmit automatic location information (ALI) to the PSAP with each 911 call.

• Wireless ALI usually consists of geodetic coordinates derived from GPS and other location technologies embedded in smartphones.

• Recent FCC rules have tightened the 911 accuracy standards that service providers must meet.
  • More precise horizontal location for indoor as well as outdoor calls.
  • Vertical location to identify floor level.
  • Dispatchable location (civic address plus floor/room/office) when technically feasible.
Wireless E911: Tower/Sector-Based Location (Call Routing)

- Cell tower/sector is the identifier used to route 911 calls to the PSAP.
Wireless E911: Caller Location

- Horizontal (x/y axis) coordinates enable the PSAP to locate the caller for dispatch purposes.
- New FCC requirement: wireless carriers must provide vertical (z-axis) coordinates to identify caller’s floor level.
Wireless E911: Routing and Location Data Path (Legacy Architecture)

Developments in Wireless E911 Geolocation: Location-Based Routing

• Location-based routing (LBR) routes wireless 911 calls to the appropriate PSAP based on caller location rather than cell tower location.

• Using caller location for 911 call routing reduces number of calls that are sent to the incorrect PSAP based on tower location and then must be transferred to the correct PSAP.

• Some carriers have begun using LBR to route 911 calls:
  • T-Mobile enabled LBR capabilities in parts of Texas and Washington State in 2020.
  • This month, AT&T announced that it is rolling out LBR nationwide.
Developments in Wireless E911 Geolocation: Device-Based Solutions

• Wireless carriers are increasingly using “device-based hybrid” (DBH) solutions to meet the Commission’s E911 location requirements.

• DBH leverages the location-sensing capabilities of smartphones to pinpoint the caller’s location for delivery to the PSAP.

• Operating system manufacturers have developed DBH solutions optimized for emergency location of 911 callers:
  • Google/Android – Emergency Location Service (ELS)
  • Apple/iOS – Hybrid Emergency Location Service (HELO)

• When a caller dials 911, the device automatically activates all of the capabilities that help the device determine its location, including Wi-Fi and Bluetooth.
Developments in Wireless E911 Geolocation: Dispatchable Location

- Instead of providing x/y/z coordinates, the wireless carrier provides a validated street address, floor level, and room/office (similar to a landline 911 call).
- Providing dispatchable location for wireless 911 calls is technically challenging and occurs in less than 1% of calls, but the percentage is likely to increase as technology improves.
Next Generation 911

• NG911 uses Internet Protocol (IP) technology to deliver 911 services and will replace the legacy 911 system.

• In NG911 architecture, Emergency-Services IP Networks (called ESInets) replace legacy circuit-switched networks and selective routers to deliver 911 calls to the appropriate PSAP.

• NG911 will support routing and geolocation but calls and location information will use new IP formats and follow new network paths.

• NG911 transition is under way in some states but progress has been slow and non-uniform due to funding, technical, and governance issues; many PSAPs remain reliant on legacy network elements.

• NG911 may provide new opportunities for interaction between 911 and 988, but many issues need to be explored further.
<table>
<thead>
<tr>
<th></th>
<th>911</th>
<th>988 / Lifeline</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purpose</strong></td>
<td>Emergency dispatch of fire, police, emergency medical services (EMS)</td>
<td>Assess callers for suicidal risk, provide counselling and resources, engage emergency services when needed</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>Since 1968 (50+ years)</td>
<td>Lifeline since 2004; 988 since 2022</td>
</tr>
<tr>
<td><strong>Governance</strong></td>
<td>State and local administration (governance varies by state); FCC regulation of providers.</td>
<td>National administration (Vibrant); SAMHSA oversight and grants; Veterans Crisis Line; FCC regulation of providers.</td>
</tr>
<tr>
<td><strong>Call Centers</strong></td>
<td>Over 5500 PSAPs, mostly operated by county/municipal agencies</td>
<td>180 independently operated and funded local crisis centers</td>
</tr>
<tr>
<td><strong>Network</strong></td>
<td>Dedicated emergency network elements</td>
<td>Public network</td>
</tr>
<tr>
<td><strong>Routing</strong></td>
<td>Calls routed to nearest PSAP based on street address (wireline); tower/cell sector or caller location (wireless)</td>
<td>Calls routed first to nationwide toll-free number, then to crisis centers based on caller’s area code</td>
</tr>
<tr>
<td><strong>Location Information</strong></td>
<td>Yes; automatically provided with all 911 calls</td>
<td>None provided in current Lifeline/988 configuration</td>
</tr>
<tr>
<td><strong>Technical Standards</strong></td>
<td>Yes</td>
<td>TBD</td>
</tr>
<tr>
<td><strong>Consumer Expectations re Geolocation</strong></td>
<td>Callers expect location to be transmitted and emergency personnel to be dispatched</td>
<td>TBD</td>
</tr>
<tr>
<td><strong>Liability Protections</strong></td>
<td>State and Federal liability protection for 911 services offered by communications providers</td>
<td>TBD</td>
</tr>
<tr>
<td><strong>Privacy Exceptions</strong></td>
<td>Yes – Carriers exempted from privacy restrictions when providing location information in connection with 911 calls</td>
<td>TBD</td>
</tr>
<tr>
<td><strong>FCC Authority re: Location Info</strong></td>
<td>Yes, FCC rules require provision of location information with all 911 calls</td>
<td>TBD</td>
</tr>
</tbody>
</table>
Thank You!

Contact Information:

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Public Safety and Homeland Security Bureau  
Federal Communications Commission  
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988 Suicide & Crisis Lifeline
Geolocation Needs

May 24, 2022
SAMHSA’s overarching priorities and cross-cutting principles

1. Preventing overdose
2. Enhancing access to suicide prevention & crisis care
3. Promoting children & youth behavioral health
4. Integrating primary and behavioral healthcare
5. Using performance measures, data, and evaluation

Details to follow

Equity
Workforce
Financing
Recovery
988 goals and near-term pillars of activity

SAMHSA goals

1. Strengthen and enhance Lifeline

2. Transform and strengthen broader crisis care continuum

Near-term pillars defined by SAMHSA

1A. Federal planning and convening: putting robust federal funding, leadership, and policy direction in place to strengthen the Lifeline network and the broader crisis continuum

1B. Operational readiness of the Lifeline network: ensuring the Lifeline network is equipped to respond to projected FY22 contacts

1C. Messaging and public communication: educating key stakeholders about 988 messaging and the broader public about how and when to use 988

1D. Foundation for comprehensive crisis services: putting the building blocks in place to ensure a robust and responsive crisis system that provides direct, life-saving services to all in need

Activities underlying each of these pillars evolve across phases of implementation (e.g., pre- and post-July)

Source: SAMHSA / NASMHPD meeting on December 3, 2021
Crisis contact centers are an essential component of a broader crisis continuum.

- Person in Crisis
- Crisis Line
- Mobile Crisis Teams
- Crisis Facilities
- Post-Crisis Wraparound

DECREASED USE OF:
- Jail
- ED
- Inpatient

LEAST Restrictive = LEAST Costly
Vision for 988 & crisis services

Horizon 1: Crisis contact centers¹
“Someone to talk to”

90%+ of all 988 contacts answered in-state [by 2023]²

Horizon 2: Mobile crisis services¹
“Someone to respond”

80%+ of individuals have access to rapid crisis response [by 2025]

Horizon 3: Stabilization services¹
“A safe place for help”

80%+ of individuals have access to community-based crisis care [by 2027]

Underlying principles

Provide individuals experiencing suicidal, mental health, and substance use crises, and their loved ones, with caring, accessible, and high-quality support

Ensure integrated services are available across the crisis care continuum, supported through strong partnerships (e.g., State, Territorial, Tribal, Federal)

Provide “health first” responses to behavioral health crises and ensure connection with appropriate levels of care

Integrate lived experiences of peers and support for populations at high risk of suicide, such as Veterans, LGBTQ, BIPOC, youth, & people in rural areas

Advance equitable access to crisis services for populations at higher risk of suicide, with a focus on Tribes and Territories

¹. Inclusive of intake, engagement, and follow-up
². Proportion may differ with chat/text vs. calls; “contacts answered” is defined as connected with a trained responder

SAMHSA
Substance Abuse and Mental Health Services Administration
Snapshot of progress

Released **988 operational readiness playbooks** for core partners

Published **988 partner toolkit**, including 988 key messages, facts sheets, FAQs

Released **$105M in 988 grant awards** to 54 states and territories

Developed **988 jobs webpage** to help accelerate hiring efforts
**988 Workforce: samhsa.gov/988-jobs**

Central directory provides the **first aggregated resource** for job applicants and volunteers to find crisis centers across the network.

In communications, this can serve as a **call to action to direct applicants** to a central resource to find openings across the network.

Is anticipated to be **improved on over time**, and represents an agile & iterative approach to building the 988 workforce.

### 988 Suicide and Crisis Lifeline Volunteer and Job Opportunities

988 centers are looking for empathetic volunteers, employees, and interns to serve as crisis counselors answering phone, chats and texts, as well as managers with advanced degrees.

#### Answer the call.

The 988 network is made up of over 200 centers answering calls, chats, and texts from people in crisis. These centers are looking to bring on new volunteers and paid employees. You will receive training, so if you are a caring person who wants to help those in crisis, apply today.

To facilitate this, below is a list of the centers with links to their career or volunteer websites where you can find open opportunities to become a crisis counselor or a manager.

Note: Centers with an asterisk (*) have remote opportunities.

#### Select a state or territory:

- **Alabama**
  - [Crisis Center](#) (Birmingham, AL)
  - [Crisis Services of North Alabama/HELPline](#) (Huntsville, AL)
  - [Lifelines](#) (Mobile, AL)

- **Alaska**
  - [Caroline Crisis Intervention](#) (Fairbanks, AK)

- **American Samoa**
SAMHSA 988 Webpage

One-stop-shop for 988 Resources

- www.samhsa.gov/988
- About 988
- Partner Toolkit
- Data
- Lifeline History
- More to Come
Partner Toolkit

- Fact sheet (English and Spanish)
- Key messages
- FAQs (Adding others as needed over time)
- E-newsletter template
- Logos & brand guidance
- Sample Radio PSA Scripts
- 988 Slide Deck
988 builds directly on the existing National Suicide Prevention Lifeline

2001
Congress appropriates funding for suicide prevention hotline; SAMHSA awards competitive grant to establish a network of local crisis centers

2005
National Suicide Prevention Lifeline (Lifeline) was launched with number 1-800-273-TALK

2007
SAMHSA and VA partner to establish 1-800-273-TALK as access point for the Veterans Crisis Line (VCL)

2013
Lifeline began incorporating chat service capability in select centers

2015
Disaster Distress Helpline was incorporated into Lifeline cooperative agreement

2020
FCC designates 988 as new three-digit number for suicide prevention and mental health crises

2020
Lifeline began incorporating texting service capability in select centers

2021
National Hotline Designation Act signed into law, incorporating 988 as the new Lifeline and VCL number

2021
SAMHSA/VA/FCC are responsible for submitting multiple 988 reports to Congress

2022
988 fully operational for phone and text in July 2022

State 988 funding opportunity released, and states are responsible for submitting planning grants to Vibrant
Providing 24/7, free and confidential support to people in suicidal crisis or mental health-related distress helps thousands of people overcome crisis situations every day.

Proven to work – Lifeline studies have shown that after speaking with a trained crisis counselor, most callers are significantly more likely to feel:

- less depressed
- less suicidal
- less overwhelmed
- more hopeful
Snapshot of the Lifeline Network

Lifeline Centers
May 09, 2022 - May 15, 2022

Networks:
- Local
- Local + Backup
- Local + Chat/Text
- Local + Backup + Chat/Text
- Chat/Text

Answered Contacts:
- 500
- 1000
- 1500
- 2000
- 2500
How the Lifeline works

In FY21, the Lifeline received roughly 3.6 million contacts

People who call the Lifeline are given three options:
• Press 1 to connect with the Veterans Crisis Line
• Press 2 to connect with the Spanish Subnetwork
• Remain on the line and be connected to a local crisis center; if local crisis center is unable to answer, the caller is routed to a national backup center

People who text/chat the Lifeline are currently connected to crisis centers equipped to respond to texts and chats

- 2.4 Million Calls
- 1.1 Million Chats
- 0.1 Million Texts
Potential future Lifeline volume

The majority of states have no pending 988 legislation, and we anticipate many states will not have legislation in place involving user fees prior to July 2022. There is significant variation in state general revenue support of crisis call services.

- **2021**: 3.1M
  - Calls: 1.5M
  - Chats/texts: 1.6M
- **2022**: 3.6M
  - Calls: 2.0M
  - Chats/texts: 1.6M
- **2023**: 7.6M
  - Calls: 4.6M
  - Chats/texts: 3.0M

The chart shows the projected volume of calls and chats/texts from 2021 to 2023, with a significant increase expected in 2023.
988 funding updates

• Announced $282M to help transition Lifeline to 988
  – $177 million to strengthen and expand the existing Lifeline network operations, back-up center workforce, and telephone/chat/text infrastructure
  – $105 million to build up staffing across states’ local crisis call centers

• Released $105M Notice of Funding Opportunity to states and territories

• $700M in proposed FY23 President’s Budget
<table>
<thead>
<tr>
<th>Areas of Need</th>
<th>Areas of Current Work</th>
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<tbody>
<tr>
<td>• Identification of Best Practices</td>
<td>• Regular meetings with OEMS</td>
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<tr>
<td>• Protocol development</td>
<td>• Calls with 911/EMS/police stakeholders</td>
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<td>• Liability concerns</td>
<td>• Co-sponsorship Agreement</td>
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<tr>
<td>• Exchange of information</td>
<td>• Community of Practice (Vibrant)</td>
</tr>
<tr>
<td>• Coordination in high-risk situations</td>
<td>• Policy Academy (PRA)</td>
</tr>
<tr>
<td>• 988/911 interoperability</td>
<td>• Required activity in State 988 grants</td>
</tr>
<tr>
<td>• Dissemination/communication</td>
<td>• Incorporation into Crisis Mapping in 30 locations</td>
</tr>
<tr>
<td>• Funding sources to support collaboration</td>
<td>• National Emergency Number Association 911/988 workgroup</td>
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Current Lifeline routing

Structure
• Routing occurs through a centralized system supported by SAMHSA grant funding and currently overseen by the Lifeline Network Administrator, Vibrant
• Routing is based on area code
• Calls currently go to the nearest crisis center from the area code the call was dialed from
• If an area is not covered or a center unable to answer the contact rolls to a network of Back-up Centers

Challenges
Routing to Centers
• Goal is to accurately route to closest center to caller location, yet not all callers are physically in the area code of their phone number
• Requirement of SAMHSA 988 State and Territory grant is to respond to at minimum 90% of State and Territory call volume
• Some states are charging fees to respond to their local crisis contacts

Routing in Emergency Situations
• Centers use PSAP locator based on identified information available, many time centered on area code
Thank you!

Miriam Delphin-Rittmon  
Assistant Secretary for Mental Health and Substance Use Substance Abuse and Mental Health Services Administration (SAMHSA), HHS

Etan Raskas  
Chief of Staff for 988 Team and Behavioral Health Crisis Coordinating Office  
SAMHSA, HHS

James Wright  
Chief of Crisis Center Operations  
SAMHSA, HHS
Geolocation and 988: The Need for Location Routing and Rapid Response to Persons at Imminent Risk of Suicide

John Draper, Ph.D.
Vibrant Emotional Health & the National Suicide Prevention Lifeline

May 24, 2022
The views, opinions, and content expressed in this presentation do not necessarily reflect the views, opinions, or policies of the Center for Mental Health Services, the Substance Abuse and Mental Health Services Administration (SAMHSA), or the U.S. Department of Health and Human Services.
Why Does the Lifeline Need Geolocation?

1. Most callers to the Lifeline use mobile devices to contact the service, and Lifeline routes by the caller’s area code.

2. Location-based routing is essential to connect callers to the crisis center nearest to them, so they can be efficiently connected to local behavioral health, crisis and emergency care services as soon as possible.

3. Nearly 1% of Lifeline callers at imminent risk of suicide are unable or unwilling to collaborate with counselors to provide their location, and serious harm or death could result if emergency services are unable to locate them.
How is 988 different than 911?

“How is 988 different than 911?

“988 is designated as the universal telephone number within the United States for the purpose of the national suicide prevention and mental health crisis hotline system operated through the National Suicide Prevention Lifeline…”

Centralized Network Routing
- Backups and Efficiencies
- Centralized quality assurance and operating standards

A Crisis Care Service
- Effectively reduces emotional distress & suicidality (free and accessible to all, 24/7/365
- Can also link to care & outreach services, follow-up
- Risk response is grounded in a focus of least restrictive intervention possible
Lifeline Current State

National Suicide Prevention Lifeline is a network of independently operated, independently funded local and state call centers. The Lifeline is not one large national call center. It is a national portal for connecting to localized services.

3m contacts received FY 2021 (VCL excluded)

Call the Lifeline anytime, 24/7
1-800-273-8255
CHAT WITH US

Text to 988 by July

Nearly 200 centers including
• 14 national backups
• 24+ Crisis Chat &Text Centers
• 3 Spanish centers
• 1 VCL backup
Lifeline & Mobile Crisis Teams Today

2021 Survey completed by 187 centers

• 156 / 187 (83%) centers reported that mobile crisis serves their area (Centers in Alaska and Guam did not report mobile crisis)

• Of the 156 that reported mobile crisis in their area 73 (47%) reported that they operated these mobile crisis programs
Lifeline Calls and 911

911 dispatchs per lifeline mode

**PHONE**
- 23% of calls present with suicidal distress
- 2% require 911 dispatch

**CRISIS CHAT (web-based)**
- 47% of chat visitors in suicidal distress
- 0.7% require 911 dispatch

Lifeline Policies effective in reducing imminent risk through less invasive means (76% highest risk de-escalated collaboratively)

Gould et al, 2016

911 mental health calls

- 8% of 240M 911 calls involve persons with emotional disturbances (NYC + NENA data)
- Approx. 3 calls per event
- Some mental health calls will still require 911 (weapons, attempt in progress, etc.; approx. 25% of mental health calls)
- **Approx. 4.8M mental health calls annually could be deflected from 911** (or about 2% of all 911 calls)

1. Data and analysis provided by Vibrant to SAMHSA, 2020
Lifeline: 4 Core Principles of Risk Assessment

1. SUICIDAL DESIRE
   I want to kill myself

2. SUICIDAL INTENT
   I am going to kill myself

3. SUICIDAL CAPABILITY
   I am able to kill myself

4. BUFFERS
   I have reasons to not kill myself
Lifeline Imminent Risk Policy

Safety First: “Whereas the primary mission of the NSPL is to prevent the suicide of callers to its service, all crisis center staff must undertake necessary actions intended to secure the safety of callers determined to be attempting suicide or at imminent risk of suicide.”

Collaboration Critical to Best Assure Safety:
• With people contacting service
• With local crisis and emergency services (MCTs, 911, etc.)

Principles of Counselor Imminent Risk Response:
• Active Engagement (collaboration for safety)
• Least Invasive Intervention (alternatives to 911)
• Active Rescue or “Involuntary Emergency Intervention” (engage 911 as last resort)

Lifeline 911 Protocols for Persons at IR

988/Lifeline Counselors Contacting 911 for Persons at IR may provide:

- Exact location of caller, if known
- Caller ID, if that is all they have
- Cell phone number (for text interactions)
- IP (Internet Protocol) or ISP (Internet Service Provider) number for chat interactions

May request an incident/event number from PSAP to follow-up to determine disposition status of person at risk.

- Note: as callers to crisis lines are typically anonymous, names can only be provided to PSAPs if the caller provides this information
Promotes collaboration between PSAPs and Crisis Lines

Crisis Line processes, protocols for persons at imminent risk

Recommended PSAP procedures

Communications between crisis lines and PSAPs to enhance safety

HIPAA & privacy issues

Cross-training
Lifeline Centers and 911 PSAPs

Relationship to local 911/PSAP
% of centers (number of centers)
- Yes, formal relationship: 73% (137)
- No relationship: 23% (43)
- Yes, informal relationship: 4% (7)

Communications procedures with 911/PSAP
% of centers
- Process to follow up with 911/PSAP if the caller was seen and/or transported: 73%
- 911 warm transfers mental health crisis calls to respondent: 41%
- There is an alternative dispatch option other than 911 for mental health in the area: 33%

Q86. What is your crisis center’s relationship with local 911/PSAP?
Q87. When our crisis center refers callers at imminent risk to 911, we have a process in place where they can inform us if the caller was seen and/or transported
Q88. Does 911 warm transfer mental health crisis calls to your center?
Q89. Is there an alternative dispatch option other than 911 in your area for mental health crisis situations?

Source: Vibrant Landscape Analysis (as of March 2021), n=187
Thank you!

John Draper, Ph.D.
Executive Vice President of National Networks, Vibrant Emotional Health
Executive Director, 988/Lifeline
JohnD@vibrant.org
Didi Hirsch Suicide Prevention Center (SPC)

- Founded in 1958 as the nation’s first suicide prevention center
- Inaugural member of the Lifeline
- Chat/text services since 2012
- 1 of 3 Spanish 988 Centers in nation
- 1 of 3 Disaster Distress Helpline Call Centers in nation, and the only Spanish one
- California’s largest 988 center and one of the highest volume centers in the 988 network
<table>
<thead>
<tr>
<th></th>
<th>CALLERS</th>
<th>CHATTERS</th>
<th>TEXTERS</th>
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<tbody>
<tr>
<td>&lt; 25 YEARS OLD</td>
<td>43%</td>
<td>70%</td>
<td>95%</td>
</tr>
<tr>
<td>&lt; 18 YEARS OLD</td>
<td>16%</td>
<td>41%</td>
<td>90%</td>
</tr>
<tr>
<td>BIPOC</td>
<td>64%</td>
<td>32%</td>
<td>51%</td>
</tr>
<tr>
<td>Female</td>
<td>53%</td>
<td>69%</td>
<td>81%</td>
</tr>
<tr>
<td>Transgender/Questioning</td>
<td>1%</td>
<td>7%</td>
<td>10%</td>
</tr>
<tr>
<td>% Suicide Intent Reduced at End of Contact</td>
<td>77%</td>
<td>78%</td>
<td>80%</td>
</tr>
<tr>
<td>Emergency Interventions</td>
<td>3.3% Rescues</td>
<td>3.8% Mandated Reports</td>
<td></td>
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</table>
CA 988 CRISIS CENTERS

1. Buckelew Suicide Prevention Program
2. Central Valley Suicide Prevention Hotline – Kings View
3. Contra Costa Crisis Center
4. Crisis Support Services of Alameda County
5. Kern Behavioral Health & Recovery Services Hotline
6. Optum
7. San Francisco Suicide Prevention Felton Institute
8. Santa Clara County Suicide and Crisis Services
9. StarVista
10. Didi Hirsch Mental Health Services
11. Suicide Prevention of Yolo County
12. Suicide Prevention Service of the Central Coast
13. WellSpace Health
Didi Hirsch SPC/988 and PSAP/911: Working Together

Ken Danziger, Didi Hirsch Crisis Line Shift Supervisor
J. came into chat expressing distress over a breakup with her live-in girlfriend after 2 years. She discovered that morning that her girlfriend is involved with someone else, despite earlier assurances that this affair had ended. She feels the relationship is beyond repair and is devastated. Though she initiated the chat, reaching out for help, J. was very reluctant to answer any assessment questions, including whether she had any suicidal thoughts. Not until one hour into the chat, after the very experienced and very patient crisis counselor build enough trust, did J. reveal she took an overdose of sleep medication…
988 Chat Case Study Timeline

8:15  Start of Chat: “I’m just really sad” and “I can’t answer that.”

9:18  “Well I am not going to survive the night. Sorry to put that on you.”

9:24  “It’s too late to save my life.”

9:28  “I took a bottle of Ambien about 10 minutes ago.”

9:30  Shift supervisor identifies possible city location based on provided zip code and IP coordinates and reaches out to city PD. PD is unable to assist.

9:40  Counselor asks for girlfriend’s phone number which is provided at 9:50

9:51  Counselor calls girlfriend to share possible attempt-in-progress and asks for help in locating J. while continuing chat interaction.

9:57  Girlfriend is at their apartment but J. is not there. Supervisor calls PD again with apartment address and a team is dispatched.

10:05  Police arrives at location and take over the phone call with counselor, who is also still engaging J., trying to enlist her collaboration in the rescue.

10:42  J. is located; Police start crisis negotiation through closed door.

10:51  First responders have reached J. Chat ends.
15 year old L. shared that he was homeless, after confessing to his parents that he was raped by his uncle and that he believes that he is gay. His parents reacted with shock and disbelief and after a ‘big fight’ told L. he should take back what he told them or leave their home immediately. After spending a few nights on the streets, he eventually ended up at a cousin’s home but it isn’t a long term solution. L. feels hopeless and is unwilling to contact CPS on his own behalf because ‘not everyone in my family is legal’ and he is afraid that reaching out for support could end up hurting his family, and would rather die… Though he felt strongly connected to the crisis counselor, he was unwilling to share any location details. The crisis line staff attempted to file a mandated report but it was ultimately not accepted due to a lack of information.
Poison Control Program Briefing
May 2022

Sara B Kinsman, MD PhD
Director, Division of Child, Adolescent and Family Health
Maternal and Child Health Bureau (MCHB)
Poison Control Program Overview

FY 2022 Budget = $25.8M

Poison Help Line

Poison Centers

Awareness & Education

Find a Poison Center
Poison Help Line

(800) 222-1222

- Available 24/7/365
- Free & confidential
- Calls answered by medical professionals
- Interpretation available in 161 languages
Poison Control Program Public Health Activities

- Information and treatment recommendations
- Toxicological expertise
- Surveillance
- Emergency preparedness
- Ongoing case management and follow up
Poison Control Impact, Routing and Geolocation

**Impact**

- **Over 2 million calls** in 2021 (~50% for children under 5)
- **66% resolved over the phone** without hospitalization
- Fewer unnecessary emergency care and supports poison-related care
- Estimated to save Americans **$1.8 billion** each year

**Call Routing & Geolocation**

- Calls have been routed **mainly by area code** rather than geographic location
- Importance of routing calls to the local center is vital
- Key partners are working to identify optimal solutions
- HRSA is committed to implementing potential solutions
Connect with HRSA

Learn more about our agency at: www.HRSA.gov

Sign up for the HRSA eNews

FOLLOW US:
America's Poison Centers
National Poison Data System ®

24x7 Live & Online Expertise In Every State
Talk-Text-Chat

Near-Real-Time National Surveillance and Data

Prevention/Education and Peer-Reviewed Research
About America’s Poison Centers

**WHAT WE DO**

24/7/365 National Coverage

- **55 Centers** nationwide
- **2 million** human encounters/year (*accidental exposures, ingestions, suicides, environmental hazards*)
  - Data collection began in 1983, providing **>39 years of data** and more than **65 million case records**.
  - **Nationwide repository** of information/exposure cases (web and online), triage, and management data.
  - **Data** automatically uploaded in near-real time (avg. every 8 min.).
  - **NPDS Products database** (~**500,000 substances**) updated regularly
- **~1,700** health care toxicology professionals
- **Integrated** into the near real-time National Poison Data System (NPDS)®

**THE CHALLENGE**

~**166,000 Emergency Calls to Centers Are Misdirected Annually**

America’s Poison Centers is a 501c3 Non-profit member organization founded in 1958
211
Bringing People & Services Together Since 1997
What is 211?

211 is a vital community service accessed by millions of Americans every year.

People call 211 for free, confidential help with a wide range of social services and resources, including food, housing, utilities payment assistance, health care, transportation, child care, employment opportunities, mental health crises, disaster information and assistance, and more.

Highly trained 211 specialists provide expert, caring help that addresses not only the presenting issue but underlying challenges people are facing as well. Collectively, 211s curate databases of over 900,000 programs and services nationwide.
History

• Gatekeeper Service post WWII
• Information & Referral Service 1960s - Present
• Taxonomy of Human Services in 1983
• 211 was first used as an information & referral line by the United Way of Greater Atlanta in 1997, Connecticut in 1999
• Officially designated by the FCC in 2000
• Communities launched 211 services through United Ways, independent non-profits, and government agencies organically over 25 years
• Most 211s are available 24/7 every day and in 180 languages
96% U.S. Population Coverage

% 211 COVERAGE BY STATE
- 100% Coverage
- More than 75% Coverage
- More than 35% Coverage
Contacts
Calls, Web Chat, Text & E-Mail
## Notable Contact Data

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone Calls</td>
<td>11,029,047</td>
<td>18,507,610</td>
<td>19,677,937</td>
</tr>
<tr>
<td>Texts</td>
<td>278,899</td>
<td>1,174,128</td>
<td>1,415,004</td>
</tr>
<tr>
<td>Web Chat</td>
<td>102,856</td>
<td>175,813</td>
<td>216,345</td>
</tr>
<tr>
<td>E-mail</td>
<td>48,040</td>
<td>160,703</td>
<td>97,733</td>
</tr>
<tr>
<td><strong>Total Contacts</strong></td>
<td><strong>11,458,842</strong></td>
<td><strong>20,018,254</strong></td>
<td><strong>21,407,019</strong></td>
</tr>
<tr>
<td>Spanish</td>
<td>398,302</td>
<td>1,870,077</td>
<td>1,731,016</td>
</tr>
</tbody>
</table>

Spanish contact data includes: 2019 - 398,302, 2020 - 1,870,077, 2021 - 1,731,016
211 Contact Volume
Connections & Resources
Referrals, Needs and Databases
In 2021 The 211 network responded to more than 21 million requests for help by phone, text, email and chat.

In 2021 211s made more than 23 million connections to critical services and help.

During the COVID-19 Pandemic, 211s responded to more than 41 million requests for help and made 11 million connections to COVID-19 resources.
“Folks in San Diego and California are going to do some community based work on the 211…We’re seeing a lot of interest in the local sharing of information. That’s one of the areas where we see growth opportunities for health information exchanges. Healthcare, as the saying goes, is local.”

Steve Posnack
Deputy National Coordinator for Health Information Technology
Office of National Coordinator: US Dept Health & Human Services
Integrating EHR Use, Health Data Exchange Into Behavioral Health
Dec 6, 2018 / EHR Intelligence
211.org

• Begin search for local 211
• General information and link to local databases

Help starts here
211 connects you to expert, caring help. Every call is completely confidential.

Call 211 for help
Can’t call us? Find a local 211
211
Get Connected. Get Help.
9-1-1 and 9-8-8

April Heinze, NENA
Brandon Abley, NENA
NENA 9-1-1/9-8-8 Interactions Standard

The goal is to provide uniform best practices to stakeholders in the ECC environment and the new 988 system; and begin to address each entity's role and responsibility, the processes and training needed to properly handle mental health crises. The standard will also define how the 988 system can interconnect and utilize the 9-1-1 system for accurate 988 call routing and support for text messaging to 988.
The standard will cover:

- Roles of 9-1-1 and 9-8-8
- Effective Collaboration
  - MOUs, Interagency Agreements, relationship management, call continuity, understanding legislative requirements at all levels
- Operational Considerations
  - SOP/Policy, information sharing, transfers, end user experience
- Training Considerations
- Technical Considerations
Challenges For 9-1-1 Today

• 9-8-8 routes calls to the closest call center using area code
• Number portability
• Nomadic Society
• 9-8-8 does not receive geolocation today
• Imminent risk of harm
• Calls that don’t belong to 9-8-8
Exigent Circumstances (EC) Look-Up

Call placed to 988

9-1-1 processes information and starts EC process

EC request is delivered to the wireless carrier

PSAP updates the CAD record with location and dispatches responders

988 determines imminent threat of harm and contacts 9-1-1

The EC look-up is approved by Law Enforcement

Wireless carrier provides the callers location

PSAP determines the location in outside of their jurisdiction, looks up correct PSAP contact number and turns the call over for dispatch
The Power Of Geolocation

• The call could be initially routed to the closest 988 Center based on location
• 988 can look-up the correct PSAP to request dispatch based on location for imminent threat intervention
• Responders can be sent immediately without long delays and added complexity of exigent circumstance look-ups
• MOST IMPORTANT – better outcome for the person in need of help
Just Use NG9-1-1

- The NG9-1-1 system was designed from day 1 to serve all N-1-1 and 9-Y-Y services from a single infrastructure
- NG9-1-1 systems being installed today could handle routing, queueing and transfer of 9-8-8 with no change
- Carriers and other 9-1-1 call sources could present 9-8-8 calls exactly the same as 9-1-1: same signaling, same circuits, same processes
- The NG9-1-1 system meets all of 9-8-8's needs with open, free technology and has already solved problems like geolocation
- Importantly, this provides instant interoperability with 9-1-1 entities, using off-the-shelf products and services that are available right now.
LoST: Location to Service Translation

- Internet Standard, IETF 5222
- LoST servers are used in NG9-1-1 including (ECRF/LVF and Forest Guide)
- LoST is a good solution for NG9-1-1, because NG9-1-1 needs interoperability
- In NG9-1-1, LoST is used by the ECRF to find the correct PSAP at a location or LVF to validate a location
- This same technology can be used for 9-8-8, providing:
  - An instant solution for 9-8-8 location and routing issues
  - An instant solution for interoperability with 9-1-1
Transfer N-1-1 and 9-Y-Y Calls Anywhere
Consider:

- Transfer between 9-8-8 and 9-1-1 to 988 without location is very bad because PSAP boundaries rarely conform to area code/exchange boundaries.
- If a transfer is needed, it’s because there is a critical situation, and by definition, seconds count, and misroutes waste seconds—**Save seconds, save lives**.
- The same location accuracy needed for 9-1-1 is needed to dispatch field responders correctly.
- Location can be made available to the system that routes calls **without making it available to 988 call takers**—unless the caller consents to providing their location.
Problems solved for 9-8-8:

- Location
- Location integrity (e.g. validation)
- Location privacy
- Location-based routing (civic+geodetic)
- Policy-based routing (e.g. language)
- Secure call transfers between centers or specialists
- Media and language marking (e.g. to route to a Spanish speaking specialist, or to route a video session to someone who knows ASL)
- Security
- Interoperability between 9-8-8 systems
- Interoperability with 9-8-8 and NG9-1-1
- Backwards-compatible interoperability with E9-1-1

... with free, open standards-based technology
THANK YOU!

babley@nena.org
aheinze@nena.org
Lifeline Technology and Location Data Usage

Current and Future

May 2022
Brief Summary

Overview: How the Lifeline Routes and Uses Geolocation Data Today

• Lifeline primarily uses centralized routing logic
• Current routing is based on caller’s phone number for voice & SMS text (area code and exchange) and self-identification for chat (zip code)
• Emergency dispatch is based on caller’s number unless they provided better data

By Channel: Lifeline Technology Architecture and Routing

• Current state: How Voice, SMS Text, and Chat work today
• Future State: Vision for 988 Unified Platform
Current Lifeline Technology Architecture – Voice
May 2022 Current State

- **Call to 800-273-8255**: Caller number and called number collected; some automatic routing decisions made.
- **All Carriers**: Greeting and menu; caller can make some routing decisions.
- **Intrado**: Final routing based on caller information (area code, exchange) is geographic.
- **Lifeline Network Center**: Routing table based on geographic match, then within-state table, then national backup.
- **Intrado PSAP Lookup**: Crisis counselor identifies emergency and consults with supervisor to affirm.
- **Supervisor uses City/State information on caller, manually identifies PSAP, and contacts directly**.

Emergency:

*Lifeline crisis counselors are trained to use the least invasive interventions and refer help seekers to other crisis services and non-public safety interventions whenever possible before escalating to a PSAP.*
Current Lifeline Technology Architecture – SMS Text

May 2022 Current State

Help seeker offered a pre-chat survey, which gathers information that assists prioritization and routing.

Final routing based on caller information (area code, exchange) is geographic.

Routing table based on geographic match, then within-state table, then national backup.

Crisis counselor identifies emergency and consults with supervisor to affirm.

Supervisor uses City/State information on caller, manually identifies PSAP, and contacts directly.

Lifeline crisis counselors are trained to use the least invasive interventions and refer help seekers to other crisis services and non-public safety interventions whenever possible before escalating to a PSAP.
Current Lifeline Technology Architecture – Chat
May 2022 Current State

Help seeker offered a pre-chat survey, which gathers information that assists prioritization and routing.

Final routing based on caller information (zip code) is geographic.

Routing table based on geographic match, then within-state table, then national backup.

Crisis counselor identifies emergency and consults with supervisor to affirm.

Supervisor will leverage internet (IP) & provider (ISP) information to confirm general location.

Supervisor contacts PSAP with ISP contact information so PSAP can acquire location from ISP.

Emergency

Lifeline crisis counselors are trained to use the least invasive interventions and refer help seekers to other crisis services and non-public safety interventions whenever possible before escalating to a PSAP.
Future Lifeline Technology Architecture – Voice & SMS Text

Planned for Late 2022 into 2023

**Ideal scenario:** Obtain geolocation information for cell tower (area code, exchange) via Intrado

**Routing hierarchy then becomes:**
1. Cell tower area code/exchange
2. Existing Caller number area code/exchange

Cell tower location provides significantly improved ability for PSAP lookup, but still lacks precision

Centers on 988 Unified Platform could leverage a central PSAP routing function; precise geolocation data could be requested via Intrado for emergency scenarios and passed directly to PSAP

Off-platform centers function as today with improved cell tower location data
Recap

For improved routing:

- Access to additional geolocation data for all calls & SMS texts
- Ability to directly connect to PSAP via Intrado with precise geolocation for emergencies
  - Provide indirect access through 988 Unified Platform; limit access to location data
Location based routing of 988 call using cell based location

1. Carrier uses Cell Location to determine center to route call to
2. Carrier routes call to center over PSTN
3. Utilize cell based routing functionality of 9-1-1

Carrier Network

Location Server

Public Phone Network

GMLC

(1) Ask for Routing Instructions
(2) Get cell location
(3) to: Center Phone # From: NPA-NXX-XXXX
(4) to: Center A Phone From: NPA-NXX-XXXX
(4) to: Center B Phone From: NPA-NXX-XXXX
(4) to: Center C Phone From: NPA-NXX-XXXX

Center A

Center B

Center C
Delivering Cell Based location data to 988 center

1. Ask for routing instructions
2. Get cell location
3. To Center Phone #: NPA-NXX-xxxx
4. To Center A Phone: NPA-NXX-xxxx
5. To Center B Phone: NPA-NXX-xxxx
6. To Center C Phone: NPA-NXX-xxxx

Carrier Network
Location Server
GMLC
Public Phone Network
Center A
Web Based Location Viewer
Center B
Web Based Location Viewer
Center C
Web Based Location Viewer
Possible Routing Text-2-988 using Geolocation

- Uses same underlying infrastructure as Text 2 9-1-1
988 Geolocation Forum
May 24, 2022, 9:30a – 4:00p

Federal Communications Commission
U.S. Dept. of Health and Human Services
U.S. Dept. of Veterans

More Information and Copy of Livestream will be available at:
https://www.fcc.gov/news-events/events/2022/05/forum-geolocation-988