Chapter 3: 911 Hotline Alternatives

Introduction

911 is the most used hotline in the United States,[1] with members of the public making an average of 600,000 calls to 911 each day.[2] The public relies on 911 for a wide array of issues, ranging from requests for information to assistance in acute emergencies. For a small but important share of 911 calls, the resulting dispatch yields life-saving responses to medical emergencies and serious crimes-in-progress. But many calls to 911 are from people seeking information or lodging minor complaints, from questions about how to get a driver's license renewed to complaints about a neighbor's car is blocking one's driveway. A recent analysis of 911 calls to the largest public communications center in the country found that the most common calls pertained to minor traffic concerns, followed by non-crime administrative or information requests and accidental calls or hang-ups.[3]

The tremendous volume and diversity of 911 calls has placed a considerable burden on emergency communications centers (ECCs), which, coupled with staffing shortages, may severely diminish capacity to respond to calls for service. In response, alternative hotlines have been established to divert some share of those calls to nonemergency telecommunicators, trained counselors, or other public resources. These alternative hotlines serve a variety of purposes, providing assistance with non-emergency issues and municipal services (311),[4] community-based health and human services referrals (211),[5] suicide prevention counseling (988),[6] support for information on safe digging in relation to gas lines (811),[7] and even transportation information for travelers (511).[8] Crisis hotlines, while not associated with three commonly used digits, are prevalent, including those for domestic violence support, runaway youth, mental health services for veterans, and human trafficking.

Understanding and examining the effectiveness of these resources could generate important insights into public safety, public trust in the police and government service provision overall, and efforts to reduce biases and harms caused by traditional police responses to calls for service. Alternative hotlines hold promise in providing faster and more tailored responses to inquiries from members of the public, which in turn could increase public satisfaction with local services. These hotlines have the potential to engage in proactive problem-solving in partnership with community members while freeing officer time to address serious crimes. They may also divert calls from law enforcement response, thereby reducing response times for serious calls, reliance on armed first responders, and the risk of harms and biases

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[1] "911 Stats & Data," 911.gov, accessed on October 5, 2021, https://www.911.gov/issue_911statsanddata.html.

[2] "9-1-1 Statistics," National Emergency Number Association (NENA), accessed on October 5, 2021, https://www.nena.org/911Statistics.

[3] Cynthia Lum et al., "Constrained Gatekeepers of the Criminal Justice Footprint: A Systematic Social Observation Study of 9-1-1 Calltakers and Dispatchers," *Justice Quarterly* 37, no. 7 (2020): 1176-1198, https://doi.org/10.1080/07418825.2020.1834604.

[4] Colin Wood, "What Is 311?" GovTech. GovTech, April 23, 2021. https://www.govtech.com/dc/articles/what-is-311.html.

[5] Federal Communications Commission, "Dial 211 for Essential Community Services," December 31, 2019, https://www.fcc.gov/consumers/guides/dial-211-essential-community-services.

[6] Federal Communications Commission, "Fcc Designates '988' as 3-Digit Number for National Suicide Prevention Hotline," FCC News, July 16, 2020, https://docs.fcc.gov/public/attachments/DOC-365563A1.pdf.

[7] "Call811: Know What's below. Call before You Dig." Call 811. Accessed October 19, 2021, https://call811.com/.

[8] Christine M. Johnson and Elwyn Tinklenberg, "511: America's Traveler Information Number," *ITI Journal*, August, 2001, https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.376.2103&rep=rep1&type=pdf

associated with excessive force. This chapter explores these intended outcomes, drawing from the relatively limited research evidence and more extensive literature developed by associations and government entities on the topic. It describes the state of practice and summarizes what is known about the effectiveness of alternative hotlines in meeting the needs of people in search of nonemergency supports, service referrals, mental health and suicide prevention counseling, domestic violence counseling and resources, and other issues that may be best resolved through these alternative routes. Questions for inquiry and actions stem from this summary and the gaps in knowledge encountered along the way.

State of Practice

In 1968, just a few short months after President Johnson's Administration recommended a single telephone number to contact the police, AT&T officially designated 911 as an emergency number and mass implementation ensued.[9] Adoption of 911 proliferated at lightning pace, resulting in 96 percent of the country being covered by 911 service by the late 1990s.[10] Indeed, the 911 system has evolved into a one-stop shop for all manner of public inquiries, leading municipalities to quickly begin to lament the problem of "call saturation" – the unmanageable volume of calls to 911 for city services and information.[11]

Introduction of 311, the Non-Emergency Call Number
By the mid-1990s, the Department of Justice estimated that between 50 and 90 percent of calls pertained to non-emergencies.[12] In response, the Clinton White House and the US Department of Justice's Office of Community Oriented Policing Services requested that the Federal Communications Commission (FCC) reserve 311 for non-emergency calls for municipal services, and the FCC complied in 1997.[13] In addition to the goal of relieving the burden on 911 call centers, the creation of 311 was prompted by the desire among government officials to have a more systematic means of identifying and responding to needs of the general public and tracking data on public requests and their resolution.[14] The federal government provided grants to 13 jurisdictions to pilot the introduction of 311 and assess the degree to which it effectively offloaded non-emergency calls from 911.[15] Baltimore, MD, was one of the first cities to implement a 311 system in 1996, and countless others soon followed.[16] More recently, 311 has been employed to support alternatives to police response, such as through the Fulton County, GA, Police Alternatives and Diversion Program.[17]

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[9] Industry Council for Emergency Response Technologies (iCERT), *History of 911 and What It Means for the Future of Emergency Communications* (Washington, DC: iCERT, 2015), 3, https://perma.cc/YL97-9J9C.

[10] "9-1-1 Origin & History," National Emergency Number Association (NENA), https://perma.cc/X3NB-SL8R.

[11] Lorraine Mazerolle et al., "Managing Citizen Calls to the Police: The Impact of Baltimore's 3-1-1 Call System," *Criminology & Public Policy* 2, no. 1 (2002): 97-124.

[12] Office of Community Oriented Policing Services, "COPS Factsheet: 311 for Non-Emergencies, Helping Communities One Call at a Time," 2003, https://icma.org/documents/cops-fact-sheet-311-non-emergencies-helping-communities-one-call-time

[13] Office of Community Oriented Policing Services, "COPS Factsheet."

[14] Wood, "What Is 311?;" Richard W. Schwester et al., "An Examination of the Municipal 311 System," *International Journal of Organization Theory & Behavior* 12, no. 2 (March 2009): 218-236; Pew Charitable Trusts, "A Work in Progress: Philadelphia's 311 System After One Year," Philadelphia Research Initiative (March 2, 2010), https://www.pewtrusts.org/-/media/assets/2010/03/02/final-311-report-030210.pdf.

[15] Shelley E. Solomon and Craig D. Uchida, "Building a 3-1-1 System for Non-Emergency Calls: A Process and Impact Evaluation," U.S. Department of Justice, Office of Justice Programs, September 2003, https://www.ncjrs.gov/pdffiles1/Archive/205987NCJRS.pdf.

[16] Wood, "What Is 311?"

[17] Policing Alternatives and Diversion Initiative, "PAD 311 Community Referral Services," accessed November 22, 2021, https://www.atlantapad.org/311-community-referrals#FAQ.

211 for Social Service Referrals

In 1997, the first 211 system was introduced in Atlanta, GA. Whereas 311 was designed to connect members of the public with municipal services, 211 was established to afford callers quick access to community-based health and human services resources, such as homeless shelters, employment placement centers, substance use disorder programs, and veterans' services.[18] In 2000, the FCC designated 211 for nationwide use as a service request number, with the nonprofit network United Way spurring adoption through its local affiliates, and other nonprofit social service providers quickly following suit.[19] As noted by some experts, 211 has provided considerable societal benefits, particularly during natural disasters such as Hurricane Katrina. [20] In addition, some experts conjecture that 211 reduces reliance on 911 because its service referral functions help address social problems, preventing them from manifesting into more serious events that generate calls to 911.[21]

Crisis Hotlines

As 911 was evolving and 311 and 211 were coming into use, the field experienced a proliferation of tailored helplines serving a variety of people in crisis and need, from runaway youth to survivors of domestic violence and people experiencing suicidal ideation. While most of these lines do not benefit from an easy-to-recall three-digit number, they may have prompted the diversion of some share of calls from 911, arguably to other professionals and organizations better-equipped to field them.

One notable addition to the ranks of crisis hotlines came with the recent passage of National Suicide Hotline Designation Act in 2020, which designates 988 as the official phone number for mental health crises and suicide prevention.[22] The legislation requires all telecommunications carriers and Voice over Internet Protocol (VoIP) providers to ensure that users can dial 988 to reach the National Suicide Prevention Lifeline (NSPL), a national network of approximately 170 local- and state-funded crisis centers, as of July 16, 2022.[23] The Act also requires the Department of Health and Human Services, which operates the NSPL, and the Department of Veterans Affairs, which operates the Veterans Crisis Line, to research and report on strategies to make use of 988 operational and effective nationwide, including the provision of specialized services for high-risk populations such as lesbian, gay, bisexual, transgender, and queer (LGBTQ) youth; people of color, and people residing in rural communities.[24]

One issue pertaining to 988 that remains unresolved is whether the helpline should have the ability to trace the location and identity of the caller. As discussed in the 911 Governance chapter of this volume, the advantages of granting 988 geolocating capabilities in facilitating quick responses to life-threatening events may be overshadowed by the disadvantages associated with violating the privacy and anonymity

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[18] Saxton et al., "2-1-1 Information Services: Outcomes Assessment, Benefit–Cost Analysis, and Policy Issues." *Government Information Quarterly* 24, no. 1 (2007): 186-215.
[19] Saxton et al., "2-1-1 Information Services."
[20] Saxton et al., "2-1-1 Information Services."
[21] S. Rebecca Neusteter et al., "The 911 Call Processing System: A Review of the Literature as it Relates to Policing," Vera Institute of Justice, July 2019, https://www.vera.org/publications/911-call-processing-system-review-of-policing-literature.
[22] "S. 2661 — 116th Congress: National Suicide Hotline Designation Act of 2020," www.GovTrack.us, accessed November 30, 2021, https://www.govtrack.us/congress/bills/116/s2661.
[23] The current NSPL is 10-digits long, as is the Veterans Crisis Line. The FCC designation of 988 facilitates access to mental health crisis services and consolidates both lines such that veterans who dial 988 are invited to press "1" to be routed to the Veterans Crisis Line while all other callers can obtain services through the NSPL.
[24] "S. 2661 — 116th Congress: National Suicide Hotline Designation Act of 2020."

of callers and prompting interventions that cause trauma and lead to unnecessary police response or hospitalization.[25]

Research Evidence

For this research brief, the most germane literature on hotlines that serve as viable alternatives to 911 pertains to the degree to which they successfully offloaded calls from 911, reduced reliance on police response to nonemergency events, improved the efficiency, quality and equity of police services, and increased effectiveness of service delivery based on the caller's specific needs. A crucial inquiry underlying all the above-referenced questions is the degree to which the public is aware of and makes use of alternative hotlines. It is also essential to examine the types of calls that are made to 911 and alternative call centers, and to understand how those calls are triaged and could be diverted. With studies examining 311 comprising the bulk of the 911 alternative hotline research, we look to the findings from these evaluations as a means of informing the challenges, opportunities, and viability of all manner of alternative hotlines.

In jurisdictions with 311, what types of calls are placed to 911 and how are they triaged?
Literature on this topic is thin and outdated, likely because of the difficulty researchers experience in accessing and processing computer-aided dispatch (CAD) data, which is typically where information on incoming calls and their resolution are housed.[26] A nine-site analysis of 911 calls found that the most common calls pertained to minor traffic concerns, followed by requests for information and accidental calls or hang-ups.[27] Just 16 percent of calls were for more serious safety concerns such as property and violent crimes, domestic violence, and missing persons.[28] Similarly, an analysis of calls for service in San Antonio found that 39 percent of calls were of the lowest priority level, with the vast majority pertaining to traffic incidents.[29] A study of Seattle calls for service concluded that 80 percent of calls pertained to non-criminal events.[30] Moreover, research has found that 911 professionals resolve half of all calls to 911 without the need to dispatch an officer.[31]

In jurisdictions that have introduced 311, what types of calls are placed to 311 and what share represent actual diversions from 911?
Information varies on the nature of calls to 311. While in most jurisdictions the vast majority are indeed nonemergency requests for information, one study found that 42 percent of calls to the 311 nonemergency line resulted in police dispatch.[32] Another found that 57 percent of calls to 311 were

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[25] Wireline Competition Bureau, "988 Geolocation Report — National Suicide Hotline Designation Act of 2020," Federal Communications Commission, April 15, 2021.

[26] Cynthia Lum et al., "Can We Really Defund the Police? A Nine-Agency Study of Police Response to Calls for Service," *Police Quarterly* (2021), https://doi.org/10.1177/10986111211035002; S. Rebecca Neusteter et al., "Understanding Police Enforcement: A Multicity 911 Analysis," Vera Institute of Justice, September 2020, https://www.vera.org/publications/understanding-police-enforcement-911-analysis; Neusteter et al., "911 Call Processing System."

[27] Lum et al., "Can We Really Defund the Police?"

[28] Analysis of data in Table 2 of Cynthia Lum et al., "Constrained Gatekeepers."

[29] Rob Tillyer and Michael R. Smith, "Public Requests for Assistance from the San Antonio Police Department (SAPD): An Assessment of Calls for Service Received between Jan 2018-Oct 2020," University of Texas-San Antonio Department of Criminology & Criminal Justice, April 2021, https://www.sanantonio.gov/Portals/47/Files/UTSA-Report-20201-04.pdf?ver=2021-05-06-121643-027.

[30] City of Seattle, Mayor Jenny A. Durkan, "Report on Reimagining Policing and Community Safety in Seattle," n.d., https://s3.documentcloud.org/documents/21018129/idt-report-on-reimagining-policing-and-community-safety-in-seattle.pdf.

[31] Lum et al., "Can We Really Defund the Police?"; Neusteter et al., "Understanding Police Enforcement;" George Antunes and Eric J. Scott, "Calling the Cops: Police Telephone Operators and Citizen Calls for Service," *Journal of Criminal Justice* 9, no. 2 (1981): 165-180.

[32] Lum et al., "Constrained Gatekeepers."

dispatched to police.[33] Similarly, a recent study found that 62 percent of calls for service pertaining to suicide, welfare checks, individuals experiencing mental health crises, felonious assault, simple assault, and disorderly behavior came from non-emergency lines versus 38 percent from 911 lines. Of high priority calls, about 43 percent came in on 911 lines and 57 percent on non-emergency lines.[34]

What are the various models of receiving and fielding emergency and nonemergency calls?
In some municipalities, 911, 311, and 211 are handled by the same staff of call center professionals, with the distinction being that 211 and 311 calls are treated as secondary priorities. In New York City, NY, for example, callers to 211 are routed through 311, which call center professionals then triage to the appropriate city service or nonprofit resource, taking what is known as a "blended approach."[35] Officials in New York posit that such consolidation increased efficiencies and yielded cost saving through shared software and personnel.[36] In Baltimore, however, calls to 311 are routed to a different physical center and group of professionals. While it may seem logical to combine 211 and 311 into the same consolidated systems, as New York City has done, experts have observed that fielding 211 and 311 calls may require distinct and separate skill sets, training, protocols, and performance metrics.[37] Indeed, using the same ECC to handle all manner of calls may be problematic, given that a recent survey of 37 ECCs in 27 states found that most centers do not use standardized tools, such as scripts or questionnaires, to identify calls pertaining to behavioral health crisis, and most call takers are not specially trained to handle such calls.[38]

Does the introduction of 311 reduce the overall volume of calls?
The research on the impact of 311 systems on the volume of calls placed to 911 and 311 is decidedly mixed. In Baltimore, evaluators found that the adoption of 311 was associated with a 25 percent decline in calls to 911, but those calls were offset by ones placed to 311, resulting in no net change in the total (911 plus 311) number of calls.[39] Similarly, an evaluation of 311 implementation in Austin, TX, reported a 20 percent reduction in calls to 911 during the first year of 311 operation, but the total volume of calls to 911 and 311 increased substantially during that same period.[40] And in Philadelphia, PA, researchers concluded that while the system provided easier access to nonemergency information and services, 311 resulted in just a 1.4 percent reduction in call volume during its first year of operation.[41] These inconsistent impacts suggest that much of the success of alternative hotlines rests in getting the public to use the right number for the right service.

Does the introduction of 311 reduce the share of calls that result in police dispatch?
Jurisdictions that divert calls from 911 without reducing the overall volume of calls for service should not necessarily be viewed as unsuccessful. One key potential outcome of 311 and other alternative

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[33] Mazerolle et al., "Baltimore's 3-1-1 System."
[34] Jessica W. Gillooly, "'Lights and Sirens:' Variation in 911 Call-Taker Risk Appraisal and its Effects on Police Officer Perceptions at the Scene," *Journal of Policy Analysis and Management* (December 2021), https://doi.org/10.1002/pam.22369.
[35] Elizabeth Charis Idicheria et al., "A Review of 311 in New York City," Interdisciplinary Studies on Politics, Law, Administration and Technology, Hamburg, 2012, https://negz.org/wpcontent/uploads/2017/03/ISPRAT_Projekt_Report_311_115_finales_Dokument.pdf.
[36] Idicheria et al., "Review of 311."
[37] David Eichenthal, "211/311: Is there a Case for Consolidation or Collaboration?" *PM Magazine, International City Managers Association* 92, no. 7 (August 2010).
[38] Pew Charitable Trusts, "New Research Suggests 911 Call Centers Lack the Resources to Handle Behavioral Health Crises," October 2021, https://www.pewtrusts.org/-/media/assets/2021/10/mjh911callcenter_final.pdf.
[39] Pew Charitable Trusts, "New Research."
[40] Solomon and Uchida, "Building a 3-1-1 System."
[41] Pew Charitable Trusts, "A Work in Progress."

hotlines is that nonemergency numbers reduce the share of calls that result in police dispatch. In Baltimore, researchers found that 3,700 fewer calls to both 311 and 911 resulted in police dispatch during the first two years following 311 implementation compared to the two years prior.[42] Moreover, one in three Baltimore officers who were surveyed about their perceptions of the impact of 311 believed that the number of dispatches for nonemergency events had declined significantly. [43] However, a study of almost four million calls to both 911 and 311 in San Francisco cautioned that callers could contribute to the criminalization of visible poverty through what the author terms as "complaint-driven policing."[44]

What do we know about 211 effectiveness, and how does it relate to efforts to divert calls from 911?
Published information on 211 effectiveness is relatively scarce; that which does exists is confined to studies pertaining to 211 business operations and cost effectiveness.[45] However, one longitudinal study of Missouri 211 users found that while most callers were referred to services, relatively few (36%) actually received services from their referrals. Those who made use of referred services were more likely than non-users to report that the issue for which they called 211 had been resolved, and callers with multiple needs were less likely to report such resolution.[46]

Similarly, a recent study examining social service system capacity in Alabama, Connecticut, Iowa, Minnesota, Missouri, Nebraska, and Nevada through surveys with 211 call takers found that 211 was able meet caller needs for such items as food access and tax preparation services but was less likely to be helpful in rent and car payment assistance.[47] The same study mapped social service capacity by zip code in Missouri and found considerable variation by location, with fewer services in rural areas.[48] These findings have implications for diverting calls from 911, suggesting that to be successful, the supply of non-emergency services needs to be able to meet the demand.

Other research of 211 has focused on the lack of incentives among 211 and other social service referral entities to collect, maintain, and share data on social service requests by type, referrals, and resolutions. This presents a missed opportunity to understand community needs and to assess the performance of 211 systems designed to meet them.[49] Those agencies that do routinely collect these data don't necessarily share them with other agencies, creating a knowledge "anti-commons"[50] by which data that are technically shared resources are held by multiple agencies in a manner that leads to their systematic underutilization.[51]

How effective are efforts to get people to use alternative hotlines?

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[42] Mazerolle et al., "Baltimore's 3-1-1 System."

[43] Mazerolle et al., "Baltimore's 3-1-1 System."

[44] Chris Herring. "Complaint-Oriented Policing: Regulating Homelessness in Public Space." *American Sociological Review* 84, no. 5 (2019): 769-800. https://journals.sagepub.com/doi/10.1177/0003122419872671

[45] Sonia Boyum et al., "Getting Help from 2-1-1: A Statewide Study of Referral Outcomes," *Journal of Social Service Research* 42, no. 3 (2016): 402-411. DOI: 10.1080/01488376.2015.1109576.

[46] Boyum et al., "Getting Help from 2-1-1."

[47] Matthew Kreuter et al., "Assessing the Capacity of Local Social Services Agencies to Respond to Referrals from Health Care Providers," *Health Affairs* 39, no. 4 (2020):679-688. doi: 10.1377/hlthaff.2019.01256.

[48] Kreuter et al., "Assessing Capacity."

[49] Greg Bloom, "Averting Tragedy of the Resource Directory Anti-Commons: A Practical Approach to Open Data Infrastructure for Health, Human, and Social Services" in *The Cambridge Handbook of Commons Research Innovations*, eds. Sheila R Foster and Chrystie F. Swiney (Cambridge: Cambridge University Press, 2021).

[50]See Michael A. Heller, "The Tragedy of The Anticommons: Property in the Transition from Marx to Markets," *Harv. L. Rev.* 111, no. 3 (1998): 621-88.

[51] Bloom, "Averting Tragedy."

For alternative hotlines to work effectively, the public needs to know about them, use them, and have sufficient satisfaction with the quality of the response received that they use them again. Chicago, IL, has raised public awareness of 311 through communications campaigns, one of which broadcasted former Mayor Rahm Emanuel quipping the slogan "Burning building? Call 911. Burning question? Call 311." throughout the city.[52] This may explain why Chicago boasts one of the higher annual rates of calls to 311, at 151 per 1,000 population.[53]

Some evidence demonstrates that hotline awareness and usage increases via popular media, such as the Grey's Anatomy show whose storyline featured a sexual assault and for which the Rape, Abuse, and Incest National Network rape crisis hotline National Rape Hotline Number was shared prior to the show's credits,[54] or when singer Demi Lovato was hospitalized for a heroin overdose and an addiction treatment hotline was mentioned in the coverage.[55] Recent research suggests that Logic's song *1-800-273-8255* produced a significant increase in calls to suicide prevention resources.[56] Other research, however, finds that concerted efforts to increase use of hotlines yield mixed results. A multi-pronged effort in Hawaii to share information about an invasive species of snake was effective in raising general awareness of the threat, but not in raising awareness or usage of the pest hotline.[57]

One way to encourage people to use alternative hotlines is to ensure that their issue or request is resolved expediently. In terms of timeliness, analysis of 311 data from 15 jurisdictions found that average wait time can range from 5 to 231 seconds, with the share of calls resulting in hang-ups prior to an agent answering ranging from 1.4 percent to 45 percent.[58] Satisfaction with services rendered is also crucial in encouraging 311 usage. For example, an evaluation of Philadelphia, PA's introduction of 311 found that the system was perceived by users as providing easier access to nonemergency information and services, and that the vast majority (68 percent) of Philadelphians who made use of the line reported satisfaction with it, even though one in four service requests went unresolved within a year's time.[59]

What does research tell us about best practice in the implementation and operation of nonemergency hotlines?
No rigorous research exists that links specific features of alternative hotlines with concrete measures of hotline effectiveness. However, a qualitative study of 311 implementation in New York and Chicago (both cities having been identified by the author as exceptionally positive case studies) yields some prescriptive insights.[60] The author notes that New York's successful implementation of 311 was a result of:
- strong executive leadership (311 implementation was a priority for then-Mayor Michael Bloomberg);

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[52] Mazerolle et al., "Baltimore's 3-1-1 System."
[53] Pew Charitable Trusts, "A Work in Progress."
[54] Trevor Torgerson et al., "Public Awareness for a Sexual Assault Hotline Following a Grey's Anatomy Episode," *JAMA Internal Medicine* 180, no. 3 (2020): 456-458, https://doi.org/10.1001/jamainternmed.2019.5280.
[55] John W. Ayers et al., "Media Trends for the Substance Abuse and Mental Health Services Administration 800-662-HELP Addiction Treatment Referral Services After a Celebrity Overdose," *JAMA Internal Medicine* 179, no. 3 (2019): 441-442.
[56] Thomas Niederkrotenthaler et al., "Association of Logic's Hip Hop Song '1-800-273-8255" with Lifeline Calls and Suicides in the United States: Interrupted Time Series Analysis," *BMJ* 375 (December 2021), https://doi.org/10.1136/bmj-2021-067726.
[57] Christy Martin, "Promoting Awareness, Knowledge, and Good Intentions," *Managing Vertebrate Invasive Species* 28 (2007), https://digitalcommons.unl.edu/nwrcinvasive/28.
[58] Pew Charitable Trusts, "A Work in Progress."
[59] Pew Charitable Trusts, "A Work in Progress."
[60] Wiseman, "311 Call Centers."

- the use of existing yet scalable software;
- establishment of a centralized 311 governance structure;
- the ability to hold agencies accountable for the adequate resolution of service requests through a web-based portal of performance metrics; and
- a customer service orientation on the part of telecommunicators.

Another study notes the fact that New York's system allows residents to track the progress of their requests, which serves as an accountability mechanism.[61]

Ingredients for success in Chicago included coordination with local aldermen, who are closer to constituents and can submit service requests and track service resolution for them; investment in continual technological enhancements; and the 311 system's flexibility in allowing members of the public the option of engaging via phone, email, or mobile app.[62] Others have observed the value and promise of 311 access via an array of means, with New York now offering both a Twitter and online reporting service, and Philadelphia employing a 311 smartphone app with which users can text requests and upload photos.[63] Given that the National Emergency Number Association reports that more than 80 percent of calls to 911 are placed via wireless devices, the development of smartphone apps for both 311 and 211 is a promising approach.[64]

Evaluators of Baltimore's 311 system made several recommendations that could improve operations and effectiveness. These include ensuring that the system is sufficiently funded and adequately staffed, that the goals of the system are effectively communicated to practitioner stakeholders and community members, and that dispatch priorities and governing policies be modified in accordance with responses to nonemergency calls.[65] Importantly, the evaluators recommended that the 311 system be integrated into community policing activities, such that officers use the free time associated with reductions in dispatched calls to engage in problem solving with community members.[66] A related recommendation was to pilot a "split force" approach to handling nonemergency calls, wherein 311 calls are diverted to designated patrol units who would use a problem solving approach to their responses.[67]

Finally, a 2006 review of 311 systems in Baltimore, MD, New York, NY, Chicago, IL, Houston, TX and Dallas, TX concluded that it is important to invest in integrating 311 with a web system that can be used to both submit requests and track performance, combine 311 with 211 and 511, and develop systems that span multiple jurisdictions or even an entire state.[68]

What do we know about the effectiveness of crisis hotlines?
Evaluations of tailored hotlines are limited primarily to suicide and domestic violence hotlines. However, one study of eight generic crisis lines serving non-suicidal callers found them to be successful in reducing callers' crisis states and levels of hopelessness during the call and in the weeks following. That same study found that most callers were referred to mental health services in their communities,

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[61] Marc Holzer et al., "State-level 311 Systems: Leveraging Service Enhancement and Performance Measurement at the State Level," *The Book of the States* 38 (2006): 409-413.
[62] Wiseman, "311 Call Centers."
[63] Thornton, "Beyond 311."
[64] National Emergency Number Association, "9-1-1 Statistics," accessed July 15, 2021, https://www.nena.org/page/911Statistics.
[65] Mazerolle et al., "Baltimore's 3-1-1 System."
[66] Mazerolle et al., "Baltimore's 3-1-1 System."
[67] Mazerolle et al., "Baltimore's 3-1-1 System."
[68] Holzer et al., "State-level 311 Systems."

and about one in three callers made use of those services.[69] Similarly, a study of 1,085 suicidal callers found that levels of suicidality decreased significantly both during the call and in the weeks following it.[70] Descriptive studies of suicide lines that employ a chat function found that users engaging via chat or text as opposed to phone have higher levels of suicidal ideation, suggesting that crisis lines should increase their capacity to use texting or chatting functions to promote accessibility for this high-need population.[71]

These studies are quite promising, but it should be noted that not all helplines are of equal quality. In fact, the quality of service provided by suicide hotlines varies considerably, even within the same state. A study of ten suicide prevention hotlines in California found that, while the demographics and risks of callers were similar across hotlines, callers to lines that were part of the National Suicide Prevention Lifeline were more likely to experience reduced distress compared with callers to other suicide and crisis prevention lines. This suggests that standardization of processes and continual monitoring through measures such as those in the recent 988 suicide hotline legislation passed by Congress hold promise for improving service delivery across all suicide hotlines.[72]

Another sobering finding related the National Suicide Prevention Lifeline is the rate at which counselors send emergency services. Researchers found that for 20 percent of calls categorized as posing imminent risk, counselors sent emergency services (police, sheriff, emergency medical services) with the collaboration of the callers, and in 25 percent of such cases counselors sent emergency services without the caller's collaboration.[73] The authors concluded that there remains room for improvement in that mobile crisis teams and stabilization facilities are not universally available resources.

Research in domestic violence or intimate partner violence hotlines is limited to studies that survey hotline callers, rather than experimental designs that can isolate hotline impact, or rigorous implementation-science analyses of hotline structures and processes. In addition, a stakeholder-informed assessment framework has been developed but not yet implemented.[74] These descriptive, survey-based studies of the National Domestic Violence Hotline reported overall caller satisfaction with online chats and telephonic services, which were perceived as providing helpful emotional support.[75] However, a

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[69] John Kalafat et al., "An Evaluation of Crisis Hotline Outcomes. Part 1: Nonsuicidal Crisis Callers," *Suicide and Life-threatening Behavior* 37, no. 3 (2007), 322-337.

[70] Madelyn S. Gould et al., "An Evaluation of Crisis Hotline Outcomes. Part 2: Suicidal Callers," *Suicide and Life-threatening Behavior* 37, no. 3 (2007), 338-352.

[71] Madelyn S. Gould et al., "National Suicide Prevention Lifeline Crisis Chat Interventions: Evaluation of Chatters' Perceptions of Effectiveness," *Suicide and Life-Threatening Behavior* 51, no. 6 (2021): 1126-1137. https://doi.org/10.1111/sltb.12795.

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follow-up study found that while improvements in knowledge, outlook, and self-confidence were self-reported at two weeks following hotline contact, actual changes in behavior did not comport with callers' intentions (for example, only one in four who expressed an intention to move into a shelter had done so).[76] Another important finding was that domestic violence callers reported higher rates of emotional support and greater access to all forms of services than chatline users, with the exception of healthy relationship education.[77] Importantly, callers were more likely than chatline users to report emotional, verbal, and physical abuse.[78] A companion study noted that use of the online chat function was increasing over time, and that potential users (identified as website visitors) rated online chat as their preferred method of communication.[79]

Questions for Inquiry and Action

As referenced above, research is sparse regarding alternative hotlines and the degree to which they reduce reliance on 911 ECCs, police dispatch, and the effect of such hotlines on reducing poor or disparate outcomes on those in need. Existing research is largely descriptive or correlational. In part, these gaps in knowledge reflect the challenges facing researchers seeking to access calls-for-service data. These data were not designed for research use, thus are difficult to document, clean, and recode for evaluation purposes. The few rigorous studies that do explore the impact of 311 introduction suffer from methodological challenges, such as how to disentangle changes in 311 and 911 usage with concurrent increases or decreases in crime that may occur during the evaluation period.

Studies of municipalities' transitions to 311 typically examine impact only in the first year of implementation. Moreover, existing research on this topic is already years, if not decades, old, rendering the relevance of the findings in the present-day context questionable, particularly given advances in information and communications technologies in recent years. Across this broad swath of literature, no studies were identified that examine the impact of alternative hotlines on people of color or under-resourced communities.

More studies are needed across a range of relevant topics:

- To what degree does the introduction or expansion of alternative hotlines divert calls away from 911, reduce the dispatch of police officers, or increase the dispatch of non-sworn social workers or mental health clinicians? Are some hotlines more successful in meeting callers' non-emergency needs than others?

- What is the difference in the quality of response to calls made to alternative hotlines versus those made through 911?
    - Are alternative hotline responses faster or slower (including call hold time)?
    - What share of alternative hotline calls are resolved without having to dispatch someone? What share result in the dispatch of an officer versus a social worker, mental health clinician, or other non-sworn responder?

[76] McDonnell et al., "Short-Term Outcomes."
[77] McDonnell et al., "Short-Term Outcomes."
[78] McDonnell et al., "Short-Term Outcomes."
[79] McDonnell et al., "Evaluation of NDVH."

- o What is the difference in caller satisfaction with services rendered among 911, 311, and 211 for the same call type?
- o What is the difference in the provision of appropriate follow-up services between 911, 311, and 211 for the same call type?
- o What are the privacy concerns and protections needed for people accessing service via 911, 311, 211, and 988?
- o What are the most effective approaches to educate communities about accessing 911, 311, 211, and 988?

- What are the relative costs (including time spent on scene) and potential savings of alternative hotlines, and where are any savings reinvested (e.g., to support the operation of the hotline or back into the community)?

- To what degree does the introduction of various forms of alternative hotlines reduce or increase racially disparate outcomes?
    - o Do alternative hotlines lead to reductions in police dispatches by race and community demographics?
    - o Do they reduce disparate outcomes associated with those calls that still result in police dispatch?

- What impact will the introduction on 988 have on the share of people who seek helpline versus 911 services? What are the issues and challenges associated with re-routing calls from 911 to 988 and vice versa? Are people who seek suicide and mental health services through 988 less likely to experience a police response or hospitalization compared with those who call 911 for the same services? To what degree does the inability of 988 to geolocate the call source compromise the ability to provide life-saving services?

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