

**"I don't just take whatever they hand to me": How Women Recently Released from  
Incarceration Access Health Information on the Internet**

**[Final Accepted Version]**

**Citation:**

**Shuster, B., Britton, H., Seo, H., Altschwager, D., Booton, E., Ault, M., Wickliffe, J., &  
Ramaswamy, M. (2022). "I don't just take whatever they hand to me": How women recently  
released from incarceration access internet health information. *Women & Criminal Justice*.**

**Doi: <https://doi.org/10.1080/08974454.2022.2040692>**

## **"I don't just take whatever they hand to me": How Women Recently Released from Incarceration Access Health Information on the Internet**

**Abstract:** This project sought to understand how women transitioning from incarceration, a time of extreme vulnerability to health problems and mortality, find health information online and which sources they trust and use. We conducted semi-structured interviews by telephone or in person with 74 previously incarcerated women from September 2019 to May 2020. We performed qualitative, thematic analysis of the interviews. Most of our participants used the internet to search for health information and were enthusiastic about the speed and ease of online health information. Perceptions of reliability of the information and whether they would recommend it to friends and family varied. Many participants wanted additional reliable sources of health information and ways to verify the online health information. Findings may be used to develop digital health literacy interventions that this vulnerable group of women need for transitioning back into communities and everyday life.

**Key words:** Health information, online, health literacy, digital literacy, underserved women, incarcerated, reentry.

Approximately 1.9 million women leave incarceration each year in the U.S.<sup>1</sup> Women continue to be the fastest-growing population in jails and prisons despite decades-long efforts to end mass incarceration.<sup>2-4</sup> Since the vast majority of the incarcerated eventually return to the community,<sup>5-6</sup> scholars and policy leaders strive to develop ways to improve women's success during their re-entry.

Health care access and positive health outcomes are now seen as critical sites of intervention for formerly-incarcerated women.<sup>7-8</sup> Incarcerated and post-incarcerated women have more health problems, that is, more infectious disease and chronic health conditions, than average U.S. women,<sup>8-10</sup> and post-incarcerated women have less access to health services.<sup>9</sup> Additionally, in today's pandemic, prisons and jails are hotspots for COVID-19 infection and death,<sup>11-13</sup> increasing the likelihood that post-incarcerated women may live with the after-effects of the virus. While the virus is still too new to understand its long-term effects, some initial studies indicate that survivors of the virus may face persistent or permanent cardiovascular problems, lung damage, and neurological problems.<sup>14-17</sup>

One potential asset that post-incarcerated women may have access to is the wealth of health information online. Consumers of online health information report that this access often benefits their health and well-being, their health knowledge, and their ability to manage their own health needs.<sup>18-20</sup> Pandey et al.<sup>21</sup> found a positive correlation between health status and internet use among women. According to the National Cancer Institute's 2019 Health Information National Trends Survey (HINTS) "the internet" was estimated to be the most frequent choice of US adults as the source they would go to first when they have a strong need to get information about health or medical topics (45.6%) with "doctor or health care provider" as the second most frequently chosen (44.0%).<sup>22</sup> Also, according to HINTS survey data reported in 2018,<sup>23</sup> 64% of Americans reported "some" or "a lot" of trust in the internet as a health information source. Only doctor/health care professional (94.2%) and government health agencies (70.8%) received higher percentages of "some" or "a lot" of trust ratings.<sup>24</sup>

Access to health information resources online offers potential help, but only to those individuals who can access and use it.<sup>24-29</sup> An important factor in using and benefiting from health information online is *health literacy*, defined by the Institute of Medicine and Nielsen-Bohlman, et. al.<sup>30</sup> as "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions" (p. 32). Focus-group research by Pickett, et al. found that the vast majority of the previously incarcerated women in their focus-group did have the health literacy skills required to benefit from access to the kind of health information that is found online.<sup>31</sup>

Although we had relatively little prior knowledge of how formerly incarcerated women use the internet for health information, there is some emerging research that indicates that previously incarcerated women who are transitioning back into the community typically make use of the internet on a daily basis for information seeking in general and that frequently their use is directed to seeking information about health concerns in particular.<sup>31</sup>

However, health information online is not always reliable, and health-related misinformation has spread widely on social media.<sup>32</sup> In addition, there may be privacy risks associated with seeking health information online.<sup>28-29</sup> Thus, training and sophistication in using online health information is increasingly important to achieving positive health outcomes. Indeed, Goldner<sup>29</sup> argues that the use of the internet by patients and their associates is so pervasive that health care practitioners have a duty to discuss the use, pitfalls, and dangers of internet health information during patient contact.

The current research was guided by several key questions related to the use of online health information by formerly incarcerated women. Key questions were whether women in transition from incarceration had access to the internet; whether they used the internet for health information; where they usually went online for health information; and what kinds of health information they were seeking. Additionally, the researchers were interested in how trustworthy the participants perceived the health information to be and what methods they used to verify the online health information.

This research primarily used structured, qualitative thematic analysis in order to describe what was learned from the semi-structured interviews about the overall context, underlying commonalities, and latent meaning of participants' experiences with and response to using the internet to obtain health information. The findings of this research can help inform programs and interventions that are designed to help women in transition from incarceration navigate potentially inaccurate, harmful, or exploitative information online and, therefore, better assure that they can benefit from accurate online health information.

## **Methods**

From September 2019 to May 2020 the research team conducted semi-structured interviews with a total of 74 women transitioning from incarceration.

**Sample and recruitment.** Participants were recruited from women who had previously been incarcerated in jails, within the past five years, in three midwestern cities located in two states which, for purpose of anonymity, we will call City-1, City-2, and City-3.

The City-1 participants were recruited through local and regional nonprofit organizations and programs that support women's reentry, as well as through the Departments of Corrections in City-1. Participant recruitment was done by organization or research staff distributing our project description and sign-up form to women who were nearing the end of their incarceration. The post-release contact information of the women who had volunteered to participate was then provided to the research team, in accordance with guidelines provided by the [author's university-redacted for anonymity]-Institutional Review Board (IRB). The research team then contacted these women by telephone to schedule the interviews, which were conducted individually and in-person, until the COVID-19 stay-at-home orders came into effect. After the COVID-19 orders, the remaining interviews were conducted by telephone.

Many of the women from City-2 and City-3 were recruited from an already established cohort of women who were participants in an ongoing study of women's health following incarceration.<sup>33</sup> These women had given permission for additional contact, such as the phone

calls and Facebook posts that were used to recruit them into the current research. The interviews were conducted in person or via telephone.

There were also additional participants from City-2 and City-3 who volunteered after being referred to this research by nonprofit organizations that serve previously incarcerated women in the three cities. These participants were contacted by telephone to schedule their interview, and their interviews were also conducted by telephone.

**Interviews.** At the start of the interview session, all participants were read the [author's university-redacted]-IRB mandated Consent Form, and, if they again agreed to participate, they were interviewed. The interview consisted primarily of the semi-structured interview questionnaire, a pre-determined series of questions that allowed for follow-up questions and open-ended responses. The questions covered a range of topics including the participant's past technology education experiences; their access to the internet; their thoughts about online privacy; their personal and occupational goals; their interest in tech classes; and their online practices. The questions about their online practices concerned how the participants used the internet, social media, job placement websites, and online health information. The current article focuses specifically on the portion of the data from the interviews that was concerned with how the women in transition from incarceration sought health information online. Questions from the interview that were used for this report are shown in Table 1. All the semi-structured portions of the interviews were digitally recorded with the participant's permission, as prescribed by the IRB.

The interview also included a series of close-ended questions intended to gather specific information, such as demographic data. The interviews lasted from 20 minutes to an hour, and each participant received \$10 as compensation for their participation in the interview.

The semi-structured interviews were conducted by three Master-degree level research associates who were trained by senior-level investigators in qualitative data collection interview techniques. The transcription of the recorded, semi-structured interviews was largely conducted

by the same three Master-degree level research associates, with assistance from one university clerical staff member.

The researchers used an iterative coding process to infer and describe themes that were common across participants, selecting quotes that expressed and typified the discovered themes. As a result, saturation of themes was not tracked or used to limit the scope of the coding; rather, all 74 interviews were coded and the codes were iteratively applied across all discovered themes until the researchers determined that the interview results were satisfactorily described.

The senior investigator on the team did the majority of the coding, and the primary author of this paper worked with the senior investigator to review codes and spot check codes for accuracy. The primary author then worked with the senior investigator to extract themes and supporting quotes for each theme.

The two coders read the entire body of transcripts and captured concrete, close-ended responses, such as type of internet access the participants used, and the names of the health-information websites participants visited. The transcripts were also used to create an original database of responses that were organized in accordance the themes that the investigators discovered in the transcripts, using the Dedoose qualitative analysis online website,<sup>34</sup> which was the primary tool the research team used to organize the qualitative analysis and coding of the transcripts. The research team initially developed a set of stable codes related to health information online and used it inductively to develop a more detailed coding schema through iteration and consolidation until the final codes were developed, as suggested by Berg,<sup>35</sup> Hesse-Biber and Leavy,<sup>36</sup> and Rubin and Rubin.<sup>37</sup> The codes reflected the emergent categories, themes, and patterns found in the interview transcripts. The codebook of relevant themes is in Table 2.

The qualitative analysis sought to understand the overall context of participants' experiences and the underlying commonalities and latent meaning of their responses. These are factors that may be poorly captured by merely quantifying their manifest responses alone.<sup>35-36,38</sup>

The codes developed from the data reflected both the manifest content of the interviews (such as what websites participants said they used for health information) and latent content (such as the levels of trust participants had in online health information, as reflected by their willingness to recommend it to others).

After establishing a set of codes, a second round of focused coding concentrated on participants' behaviors and beliefs about online health information, the results of which are presented below.

## **Results**

**Use of the internet for health information.** Almost all of the participants reported that they had internet access either through a Wi-Fi provider in their home or on their smartphone, and the remaining participants indicated they got internet access by going to the public library and using the computer there. All of the participant indicated that they had a smartphone that they used to access the internet, and about half of them indicated that their smartphone was the only device they regularly used for internet.

An overwhelming majority of the participants indicated that they did use the internet to search for health information online. Several participants praised the ease, speed, and convenience of searching for online health information. Others gave more cautious praise.

Some participants, including several participants who had internet access in their homes, said they had not used the internet for health information or did not answer these questions. There were also a few participants who chose to stop the interview before these questions were asked or did not give an answer.

**Where participants usually went online for health information.** The interviews indicated that each of the participants who used the internet for health information had a strategy for getting useful health information, which usually focused on using certain websites and not others. As the semi-structured interview questions did not contain possible prompts,



the answers reflected only the websites that came first to the participants' minds.

When asked about which websites they used for health information, the majority indicated they used a general-purpose search engine to do an internet search. The most frequently mentioned search engine by far was Google. A few participants also mentioned using Yahoo and Siri to search the internet. While Chrome and Safari are web browsers, some participants spoke about them as search engines when we asked how they searched the internet.

The participants also mentioned specific medical or health information websites they commonly used, including WebMD and the Mayo Clinic, and they also talked about more personal, local, or regional health care websites, including the websites of regional hospitals or behavioral health centers, university hospitals, ask-a-nurse help lines, and their individual physician and pharmacies. Several participants named websites for virtual medical appointments or their personal health records, including Doctor.com or MyChart, or government-related health sites, such as their state's Medicaid website; their Qualified Medicare Beneficiary information site; or Medicare, Social Security, or their health insurance websites.

In addition to medical websites, participants mentioned they often visited commercial or popular websites that are medically-oriented such as Doctor Oz, a website created around a celebrity doctor, or The Bump, a site for expectant parents, those trying to conceive and new parents. A small number of the women sought information on alternative or natural health sites.

Many participants talked about using commercial sites to investigate medications, side-effects, or drug interactions. These included Drugs.com, as well as websites the participants identified as Pill Finder and Pill Identifier,<sup>a</sup> and their pharmacy's website. A few participants

---

<sup>a</sup> The researchers did not find relevant urls with *Pill Finder* or *Pill Identifier*, as their second-level domain. The name *Pill Finder* or *Pill Identifier* describe a type of webpage or web-based service that helps users identify manufactured pills based on the pills appearance, including shape, size, and color(s).

mentioned social media sites they visited to learn about or verify online health information; these included YouTube and Facebook. Similarly, participants talked about visiting general information sites, such as Wikipedia or Encyclopedia. Additional websites that were mentioned included HealthForWomen; MDOOn-line; Gmail; *any dot gov*; MDHelp;<sup>b</sup> Ask-a-Doctor; and MyQuest.<sup>c</sup>

**Kinds of health information participants were seeking.** The types of health information participants looked for and used included a wide range of disorder or treatment descriptions, symptom checkers, self-diagnostics, alternative medicine information, and prescription medication data. They researched information on everything from cysts and spider-bites to unexplained weight-loss, and from cancer to how to treat minor injuries. They also looked for information on their insurance coverage, about their own health and diagnoses, or about a family member or friend's medical condition. For example, one participant said that she and her girlfriend had looked up information related to lung cancer after she was diagnosed. Another participant said she used the internet daily to look for information related to a family member's HIV status, specifically "to study if there is any other new cures or ways to handle it." A few participants also responded that they used online health information for their pet's health and well-being.

Those who were comfortable with online health information also often used this information to become their own advocate. For example, one participant said she uses online information frequently to see if there are any drug interactions with her medication, and to see what other people are saying about the medication online:

---

Such *Pill Finder* or *Pill Identifier* webpages are available from such ulrs as Drugs.com, WebMD, AARP.org, NIH.gov, and many others.

<sup>b</sup> The researchers did not find a relevant website by this name, except mdhelp.net which was part of a medical practice in another state, and therefore appeared to be unlikely to be the one intended by the participant.

<sup>c</sup> The researchers concluded that "My Quest" referred to a webpage entitled "My Quest" with the url: <https://www.questdiagnostics.com/home/physicians/healthcareit/quanumsolutions/myquest/>.

Like I was telling you, I should not be taking Lexapro if I'm taking that Doxapril. It says how it interacts with that, and I'm like *Wait a minute—my doctor should have known that before they even gave me that.* Normally when they say side effects, its other people saying what it did to them, and I'm like, *wow, I did the same things.*

This participant believed that access to online health information gives her the information she needs to be an informed medical consumer and self-advocate in the medical system, and possibly to prevent medical errors.

**Perceived trustworthiness of online health information.** Participants had a full range of responses to questions related to how reliable or trustworthy they believed online health information to be. About a third of the participants indicated that they did trust medical information online and they found online health information to be reliable, accurate, useful, and helpful. Often, the participants who trusted online health information were also those who trusted the specific medical websites, such as the Mayo Clinic or WebMD. One person said she trusted WebMD more than Google, adding with Google, "You take it with a grain of salt, because you don't really know who put it up there." One participant said, "Well, if you already have a diagnosis, you can get good information. If you don't have a diagnosis, you could think you got all kinds of problems." Another participant amplified this idea to a general anxiety about this online health information, stating, "But it's kind of stressful, because...it doesn't bring much of the help to us."

A large minority of the participants indicated that they believe that the reliability of online medical information depended on a range of factors. Some believed the accuracy depended on what site they visit. Some felt that the online health information was just one source of medical advice and that people should use it in combination with working with doctors or nurses.

A few participants said they did not trust and would not rely on any online health information, and several others had never used the internet for any type of information

gathering, including health information. One woman said "I mean, some of it (online health information) could be, but some of it they just try to make money. So, it depends on if you get the right site." Another participant indicated that when she had looked for health information online, she found that blogs and sites with comments often were confusing, because people have contradictory symptoms or explanations. She indicated "with all this information, and for safety, I'm more of a call-the-hospital-and-ask-a-nurse-type person."

A few of the participants expressed that they are careful or avoid looking online for health information because the internet might give them what they called *the worst-case scenario*. These participants indicated that the unfiltered or wide-ranging health information online was not merely imprecise, but it was often overwhelming and could lead to catastrophizing. This could range from looking up symptoms to information on a diagnosis or medication. As one participant said, "Sometimes it's not reliable and just scares you more than just actually going to the doctor." Another participant had similar feelings:

I mean, it's easy. The only thing that you don't look up is symptoms. Or that you are sick. If you look up symptoms that you are having, it will tell you that you are going to die, so it's not really a good thing to look up.

This was an idea that several participants shared, that symptom-checking and self-diagnosis are perhaps the worst uses of online health information. As one participant said, "Well, you have to keep in mind, you know, that they always shoot to the worst possible, yeah, you Google anything, and they take you straight to cancer, so that is scary."

Another participant said that she only uses online health information as a back-up, because "depending on what you type in, because Google will have you, [the] internet will have you thinking you are coming down with a terminal disease when you type in stuff." The worst-case-scenario was linked to *typing things in*, or *Googling symptoms*—and yet this was precisely the process most participants used to look up health information online.

Even among participants who found online health information to be unhelpful, several participants indicated that they could be good consumers of the information. One participant

said, "Sometimes it's very useful, and sometimes it gives you other worries that don't need to be in the first place." Many participants said they could evaluate the information or follow-up with a medical professional. As one participant said:

I think it is with anything, you take out what you want. I guess it is about trusting. Because some of that stuff, you can go crazy. They have all these remedies. You know how health is. It is just like if you tried every single thing, you would be wearing yourself out.

Another participant stressed the importance of in-person medical care. She indicated that the reliability of online health information really varied according to what she needed. Ultimately, she said, "Nobody can tell you something over the internet, you know. You have to go see an actual doctor."

One indirect measure of how much the participants trusted online health information was the question on whether the participant would recommend seeking health information online to their family and friends. Those who trusted or had productive experiences with online health information would often say that they would recommend it to friends or family. Some simply indicated, "I would just tell them to Google it." Several of them restricted these answers to websites they trusted—such as WebMD, Mayo Clinic, or Pill Finder. Others gave specific caveats, such as that people should make sure they were consulting trustworthy information or that people should only use it if they did not have a serious condition. One participant said, "If it's something major, serious, I would say 'No,' but if it's something simple, that is not needed to go to the hospital for...I would say 'Yeah'."

Some participants had even more cautious responses about recommending others to look online for health information. One participant said, "Some of them I would, but I know a few people that diagnose themselves with all sorts of things." Four participants also indicated they would not recommend online health information, with many simply stating their family members had their own doctors. Others recognized that generational differences in their family could preclude internet health searches, as one participant stated:

My family is kind of old-fashioned. The older generation, they don't really use computers. And sometimes I will call them and ask them questions. Because they used to have this thing called the nurse line, but they don't have that no more. But my family is pretty old school, so they just go to the doctor.

One participant indicated she had only become an avid consumer of online health information after COVID-19 began to spread across the research area. Initially, she said she would not particularly recommend online health information to anyone, in case they found incorrect information. However, after experiencing the COVID-19 lockdown, she said:

I will say this...for the COVID-19, you know, I reference the 3M website, Donaldson Filters website, some of these scientific safety websites, to get my information. Yeah. So, I would be telling people to check those websites.

This response may have reflected in part that the participant had previously worked in the medical supplies field and therefore tended to prefer the of websites of medical supply manufacturers.

**Methods used to verify online health information.** When we asked participants about how they verified the information they were finding online, the most frequent response was that they called or visited their doctor, a nurse's line, or a hospital. Another substantial number of participants said they would rely on others to verify online health information. This could be asking friends and relatives about their problems, seeking out a friend or family member in the medical profession, or asking people online in chat rooms or blogs. Others said that they just use their common sense to evaluate the online information.

Several of the participants said that they would cross-check the online information across a variety of websites—either by visiting sites they knew and trusted or to see how frequently the information came up across sites. A few participants said that the more frequently they saw the same information, the more likely they were to believe the information.

Interestingly, a few participants did the inverse of verifying what they found on the internet. These women used the internet to check what their doctor had told them or prescribed for them. One woman was concerned about medications, side-effects, and interactions:

I am pretty healthy. I looked up my disorder. One thing I look up a lot, I look up medications. I learned not to just trust doctors, because there are side effects, so I research them. That I do all the time. I don't just take whatever they hand to me.

Rather than being a passive recipient of medical care, she was using the information at her fingertips to become her own advocate and to empower herself to verify and challenge her doctor.

## **Discussion**

The literature reveals that internet users need adequate knowledge and skills to distinguish useful information from inaccurate or harmful information that may also be found on the internet,<sup>25-28,39-41</sup> and our interviews revealed that most of the participants were aware of the need to be discerning and cautious in accepting the validity of online health information. In articulating their strategies and methods, the participants were also asserting that they were not passive users of just any health information on the internet, but rather they were expressing trust in their own ability to find and evaluate health information, using the internet.

The participants generally exhibited a healthy skepticism about the credibility of the health information online, often citing experiences that would cause them to doubt the online information or to double-check the credibility of health information they had gotten online. The use of a conscious strategy to access and verify valid health information was consistent with

Pickett, et al.'s finding<sup>31</sup> that previously incarcerated women often have the health literacy skills needed to benefit from online health information.

One popular method of verifying health information was cross-checking the information using a search engine. This method of information verification is seriously flawed because research has shown that search engine results take into account the user's past search behaviors, often prioritizing confirmation of user biases and preferences, thereby promoting their continued interest, rather than emphasizing the quality of the information.<sup>42</sup> Therefore, if the same information is found on other websites turned up by the search engine that is likely to be an artifact of the search engine's priorities rather than a reliable indicator of the information's validity. Another health information verification strategy that was popular among the participants was to *simply to rely on results from Google*, which is also problematic due to search engine algorithm issues.<sup>42-43</sup> The fact that these flawed search strategies were popular among the participants suggests that, although many have the health literacy required to benefit from online health information, there are also many who need additional information on search strategies and practices for verifying that health information acquired online is valid and safe.

A few participants did not trust the health information on the internet at all, and perhaps their lack of trust is also a statement of a lack of trust in their own ability to find and discern trustworthy health information while protecting their privacy. This lack of trust in their own ability might also be improved by interventions.

The vast majority of the members of our sample accessed health information online, which strongly suggests that those who provide health services to this vulnerable population should consider the opportunities and pitfalls that may entail. Providers must be able to discuss the implications of using the internet for health information, even with these vulnerable patients, consistent with the approach suggested by Goldner<sup>29</sup> for the general population. The levels of trust in internet health information among our participants was not inconsistent with



the findings of the HINTS research for the general population, that most Americans place some or a lot of trust in the health information found on the internet. <sup>22-24</sup>

The data demonstrated that such needs include a need to reduce uncertainty and anxiety about health conditions; a need to determine or reinforce the urgency to seek treatment; the need for a mechanism to act as a check to prevent potentially harmful medical errors; and the need to obtain information about health insurance and programs. The results of this research suggest these may be the key areas of interest that can attract participant interest in future interventions.

The interviews also revealed that the primary device available to most of the participants was a smartphone. Therefore, informational or educational interventions designed for this group and delivered over the internet are most likely to reach a broad audience if they can be effectively delivered via smartphone.

These research findings provide a strong basis for influencing and designing interventions, as well as for conducting additional research on the implications of internet health information for this vulnerable population. It supported that many of these vulnerable women do have the health literacy skills needed to benefit from educational interventions, but it also opens the question of how much internet health literacy a previously-incarcerated woman needs to use the internet effectively, and what would be the most effective way to help them cultivate that level of internet health literacy. We also need to be able to measure the impact of effective internet use on health outcomes in order to evaluate what interventions work for this population and how well they work. Research and interventions developed for this population may also be useful for other vulnerable populations, or perhaps even for the general population.

Discoveries in this line of research can have important policy implications regarding how to provide information or training on using the internet for women, as well as men, at the time of release from incarceration. Further research could also provide insight into optimization of the internet to support public health for the general population. Perhaps such research may

establish that society has a superordinate interest in the implications of the health information published on the internet, such that the government or other not-for-profit entities may decide on a policy to organize a hub for health information that is assured to be valid and address user needs as well as reduce information redundancy.

Limitations of the study included that the participants were volunteers and were therefore not a true random sample of the population. So, the results can serve as a source of insight into this population and their needs, but it is not possible to generalize broadly from this group of participants. Our participants as a group may have been more educated than is typical for previously incarcerated women. A large percentage of our participants, 82.9%<sup>d</sup>, reported an educational attainment of high school diploma/GED or higher, compared with 63.6% that has been reported for currently incarcerated women.<sup>44-45</sup>

In conclusion, the value of this research is that it demonstrates that many previously incarcerated women do have access to the internet, often on smartphones, and that could potentially be leveraged for health information interventions. It was encouraging to observe that many of the formerly incarcerated participants were familiar with and made use of health information resources available on the internet. They were thoughtful about how to get quality information and about how bad information could do harm. Their experience and the information they revealed demonstrated the broad implications of how health information on the internet may be used to benefit or perhaps harm such consumers. Given that this population has documented vulnerabilities and health risks, the information gained from this study could be relevant for other high risk populations.

## References

---

<sup>d</sup> Excludes 4 participants who did not report their educational attainment.

1. Sawyer W. Who's helping the 1.9 million women released from prisons and jails each year? Prison Policy Initiative. 2019 Jul. Available at:  
<https://www.prisonpolicy.org/blog/2019/07/19/reentry/>.
2. Sawyer W. The gender divide: tracking women's state prison growth. Prison Policy Initiative. 2018 Jan. Available at:  
[https://www.prisonpolicy.org/reports/women\\_overtime.html](https://www.prisonpolicy.org/reports/women_overtime.html).
3. Beall SK. Lock her up: how women have become the fastest-growing population in the American carceral state. *Berkeley J. Crim. L.* 2018 May; 23(1). Available at:  
<https://paperity.org/p/144419252/lock-her-up-how-women-have-become-the-fastest-growing-population-in-the-american-carceral>.
4. Cadora E. Civics lessons: how certain schemes to end mass incarceration can fail. *The Annals of the American Academy of Political and Social Science.* 2014 Jan; 651(1):277-285. doi:10.1177/0002716213503786. Available at:  
<https://journals.sagepub.com/doi/abs/10.1177/0002716213503786>.
5. James N. Offender reentry: correctional statistics, reintegration into the community, and recidivism. Congressional Research Service Report. 2015 Jan; RL34287. Available at:  
<https://fas.org/sgp/crs/misc/RL34287.pdf>.
6. Ramirez R. Reentry considerations for justice involved women. National Resource Center on Justice Involved Women. 2016 Jul; Available at:  
<http://www.ncjrs.gov/App/publications/abstract.aspx?ID=272416>.
7. Lane J. An overview: what we know about incarcerated women and girls. In: Hector J. (eds) *Women and Prison*. Springer, Cham. 2020. Available at:  
[https://doi.org/10.1007/978-3-030-46172-0\\_1](https://doi.org/10.1007/978-3-030-46172-0_1).
8. Massoglia M, Remster B. Linkages between incarceration and health. *Public Health Rep.* 2019 May/Jun;134(1\_suppl):8S-14S. doi: 10.1177/0033354919826563. PMID: 31059410; PMCID: PMC6505320.

9. Binswanger IA, Krueger PM, Steiner JF. Prevalence of chronic medical conditions among jail and prison inmates in the USA compared with the general population. *J Epidemiol Community Health*. 2009 Nov;63(11):912-9. doi: 10.1136/jech.2009.090662. Epub 2009 Jul 30. PMID: 19648129.
10. Mignon S. Health issues of incarcerated women in the United States. *Cien Saude Colet*. 2016 Jun;21(7):2051-60. doi: 10.1590/1413-81232015217.05302016. PMID: 27383339. Available at: [https://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S1413-81232016000702051](https://www.scielo.br/scielo.php?script=sci_arttext&pid=S1413-81232016000702051).
11. Hawks L, Woolhandler S, McCormick D. COVID-19 in prisons and jails in the United States. *JAMA Intern Med*. 2020 Aug;180(8):1041-1042. doi: 10.1001/jamainternmed.2020.1856. PMID: 32343355.
12. Montoya-Barthelemy AG, Lee CD, Cundiff DR, et. al. COVID-19 and the correctional environment: the American prison as a focal point for public health. *Am J Prev Med*. 2020 Jun;58(6):888-891. doi: 10.1016/j.amepre.2020.04.001. Epub 2020 Apr 17. PMID: 32387174; PMCID: PMC7164863. Available at: <https://www.sciencedirect.com/science/article/pii/S0277953620305839>.
13. Wallace M, Hagan L, Curran KG, et al. COVID-19 in correctional and detention facilities —United States Morbidity and Mortality Weekly Report. US Department of Health and Human Services/Centers for Disease Control and Prevention. 2020 Feb–Apr; 69-19. Available at: <https://www.cdc.gov/mmwr/volumes/69/wr/pdfs/mm6919e1-H.pdf>.
14. Connor J, Madhavan S, Mokashi M, et. al. Health risks and outcomes that disproportionately affect women during the Covid-19 pandemic: a review. *Social Science & Medicine*. 2020 Dec; 266, 113364. Available at: <http://www.sciencedirect.com/science/article/pii/S0277953620305839>.
15. Heneka MT, Golenbock D, Latz E, et. al. Immediate and long-term consequences of COVID-19 infections for the development of neurological disease. *Alzheimers Res Ther*.

2020 Jun;12(1):69. doi: 10.1186/s13195-020-00640-3. PMID: 32498691; PMCID: PMC7271826.

16. National Heart Lung and Blood Institute. Looking forward: understanding the long-term effects of COVID-19. National Institutes of Health. 2020 Jun 3. Available at: <https://www.nhlbi.nih.gov/news/2020/looking-forward-understanding-long-term-effects-covid-19>.
17. Post, WS. Heart Problems after COVID-19? Johns Hopkins Medicine, April 27, 2021. Available at: <https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/heart-problems-after-covid19>.
18. Wald HS, Dube CE, Anthony DC. Untangling the web-the impact of Internet use on health care and the physician–patient relationship. Patient Education and Counseling. 2007 Nov; 68, 218–224.
19. Houston TK, Allison JJ. Users of internet health information: differences by health status. J Med Internet Res. 2002 Nov;4(2):e7 DOI: 10.2196/jmir.4.2.e7 PMID: 12554554. Available at: <https://doi.org/10.2196/jmir.4.2.e7>.
20. Baker L, Wagner TH, Singer S, et al. Use of the internet and e-mail for health care information: results from a national survey. JAMA. 2003;289 2400-2406.
21. Pandey SK, Hart JJ, Tiwary S. Women's health and the internet: understanding emerging trends and implications. Soc Sci Med. 2003 Jan;56(1):179–91.
22. National Cancer Institute. 2019a health information national trends survey. National Cancer Institute. 2019. Available at: [https://hints.cancer.gov/view-questions-topics/question-details.aspx?PK\\_Cycle=12&qid=1180](https://hints.cancer.gov/view-questions-topics/question-details.aspx?PK_Cycle=12&qid=1180).
23. Finney-Rutten LJ, Blake KD, Skolnick VG, et al. Data Resource Profile: The National Cancer Institute's Health Information National Trends Survey (HINTS). Int J Epidemiol. 2020 Feb 1;49(1):17-17j. doi: 10.1093/ije/dyz083. PMID: 31038687; PMCID: PMC7124481. Available at: <https://hints.cancer.gov/view-questions-topics/all-hints-questions.aspx>.

24. National Cancer Institute. HINTS brief 39: trust in health information sources among American adults. 48. National Cancer Institute. 2019b. Available at:  
[https://hints.cancer.gov/docs/Briefs/HINTS\\_Brief\\_39.pdf](https://hints.cancer.gov/docs/Briefs/HINTS_Brief_39.pdf)
25. Korp, P. Health on the internet: implications for health promotion. Health Education Research. 2006 Feb, 21(1):78–86. Available at: <https://doi.org/10.1093/her/cyh043>.
26. Meric, F, Bernstam, EV, Mirza, NQ, et al. Breast cancer on the World Wide Web: cross sectional survey of quality of information and popularity of websites. BMJ. 2002;324(7337):577-581.
27. Orizio G, Merla A, Schulz PJ, et al. Quality of online pharmacies and websites selling prescription drugs: a systematic review. J Med Internet Res. 2011;13(3):e74.
28. Kumekawa, JK. Health information privacy protection: crisis or common sense? Online Journal of Issues in Nursing. 2001 Sep; 6(3). Available at:  
[www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Volume62001/No3Sept01/PrivacyProtectionCrisis.aspx](http://www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Volume62001/No3Sept01/PrivacyProtectionCrisis.aspx).
29. Goldner, M. How health status impacts the types of information consumers seek online. Information, Communication & Society. 2006 Dec; 9(6): 693-713, DOI:  
10.1080/13691180601063982.
30. Institute of Medicine and Nielsen-Bohlman L, Panzer AM, Kindig DA, Health literacy: a prescription to end confusion, Washington, DC: National Academies Press, 2004.
31. Pickett ML, Wickliffe J, Emerson AM, et al. Justice-involved women's preferences for an internet-based sexual health empowerment curriculum. Int J Prison Health. 2019 Aug 20;16(1):38-44. doi: 10.1108/IJPH-01-2019-0002. PMID: 32040270; PMCID: PMC7412955.
32. Purcell GP, Wilson P, Delamothe T. The quality of health information on the internet. BMJ. 2002 Mar; 324(7337):557-8. doi: 10.1136/bmj.324.7337.557. PMID: 11884303; PMCID: PMC1122494.
33. Redacted for annonymity.

34. Dedoose Version 8.3.47 (2021) web application for managing, analyzing, and presenting qualitative and mixed method research data . Los Angeles, CA: SocioCultural Research Consultants, LLC.  
www.dedoose.com
35. Berg B. Qualitative research methods for the social sciences. 7th edition. Boston, MA: Allyn & Bacon. 2008.
36. Hesse-Biber SN, Leavy PL. The practices of qualitative research. 2nd edition. Thousand Oaks, CA: SAGE Publications. 2010.
37. Rubin HJ, Rubin IS. Qualitative interviewing: the art of hearing data. 3rd edition. Thousand Oaks, CA: SAGE Publications. 2011.
38. Kvale S. Doing interviews. Thousand Oaks: Sage Publications. 2007.
39. Kortum P, Edwards C, Richards-Kortum R. The impact of inaccurate internet health information in a secondary school learning environment. J Med Internet Res. 2008; 10(2):e17. PMID: 18653441. PMCID: PMC2483927. DOI: 10.2196/jmir.986. Available at: <https://www.jmir.org/2008/2/e17>.
40. El Sherif R, Pluye P, Thoër C, et al. Reducing Negative Outcomes of Online Consumer Health Information: Qualitative Interpretive Study with Clinicians, Librarians, and Consumers. J Med Internet Res. 2018 May 4;20(5):e169. doi: 10.2196/jmir.9326. PMID: 29728350; PMCID: PMC5960043. <https://pubmed.ncbi.nlm.nih.gov/29728350/>
41. Lu X, Zhang R, Wu W, et al. Relationship Between Internet Health Information and Patient Compliance Based on Trust: Empirical Study. J Med Internet Res. 2018 Aug 17;20(8):e253. doi: 10.2196/jmir.9364. PMID: 30120087; PMCID: PMC6119214. Available at: <https://pubmed.ncbi.nlm.nih.gov/30120087/>.
42. Fortunato S, Flammini A, Menczer F, et al. Topical interests and the mitigation of search engine bias. Proc Natl Acad Sci USA. 2006 Aug;103(34):12684-9. doi: 10.1073/pnas.0605525103. Epub 2006 Aug 10. PMID: 16901979; PMCID: PMC1568910.

43. Lu L, Perdisci R, Lee W, et al. "SURF: detecting and measuring search poisoning" Proceedings of the 18th ACM Conference on Computer and Communications Security, CCS 2011, Chicago, Illinois, USA, October 17-21, 2011. DOI:10.1145/2046707.2046762.
44. Ewert S, Wildhagen T. Educational characteristics of prisoners: Data from the ACS. U.S. Census Bureau, Housing and Household Economics Statistics Division. 2011 Washington DC. Available at: <https://paa2011.princeton.edu/papers/111587>.
45. Rampey BD, Keiper S, Mohadjer L. et al. Highlights from the U.S. PIAAC Survey of Incarcerated Adults: Their Skills, Work Experience, Education, and Training: Program for the International Assessment of Adult Competencies: 2014 (NCES 2016-040). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Available at: <http://nces.ed.gov/pubsearch>.



**Table 1. Questions from Semi-structured Interview Form that were Used in the Qualitative Analysis for this Report**

<p>Tell me about your experience using with computers, professionally or personally.</p> <p>If they haven't used a computer before:</p> <p>Are there reasons you have not used a computer before?</p> <p>Are you interested in using or learning to use a computer in the future?</p> <p>What would motivate you to want to use a computer or go online?</p> <p>If they have used a computer before:</p> <p>If you need to use a computer, where do you usually go?</p> <p>What are the main tasks that you use a computer for?</p> <p>What are the main barriers you face when you want to use a computer?</p>
<p>Which device do you generally use to search information online?</p>
<p>Do you have Internet access at home? If yes, do you have broadband internet access at home? (Explain broadband internet access as needed)</p>
<p>What are some of the main things you do online?</p>
<p>How important do you think it is for you to have access to the internet? Can you provide reasons for that?</p>
<p>Which social media sites do you use most frequently? Why do you prefer those social media sites?</p>
<p>What are the main barriers or challenge you face when you want to use the internet?</p>
<p>Where do you generally look for health information? Can you explain why you prefer those sources?</p>
<p>Have you used the Internet to look for health information?</p> <p>If yes:</p> <p>What sources do you usually search on the Internet for health information?</p> <p>How do you go about verifying whether health information online is accurate or not?</p> <p>How do you feel about health information online? Do you think you can trust health-related materials available online?</p> <p>Would you recommend your family members or friends to look for health information online?</p>

**Table 2. Codebook**

<b>Code Name</b>	<b>Description</b>
Online Health Information	Uses of the internet for health information: <ul style="list-style-type: none"><li>• insurance coverage</li><li>• health-related questions</li><li>• medication uses, side-effects, interactions</li><li>• diagnostic tools</li><li>• as a cost-effective replacement for visiting physicians, especially when uninsured</li></ul>
Communication	Ways participants used the internet to communicate with health professionals, doctors, and hospitals
Privacy	Discussions about safeguarding online privacy as well as using the internet to preserve medical privacy
Trust	Levels of trust participants had in the health information they found online
Recommend	Highlights whether participants would recommend or share online health information or websites with others
Sources	Names of websites or search tools participants used for health information
Verification	Discussions about safeguarding online privacy as well as using the internet to preserve medical privacy