

Accuracy of Dermatologist Listings in Hawai'i's Medicaid (Med-QUEST) Physician Directories

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Abstract

Since 2017, Hawai'i has had a statute requiring health plans to update their provider directories at least monthly. However, the results of this study suggest that despite this regulation, errors in physician directories may be an ongoing problem. Using publicly available online Medicaid physician directories from Med-QUEST, Hawaii Medical Service Association (HMSA), AlohaCare, 'Ohana Health Plan, and United Healthcare, 473 unique listings for dermatologists were reviewed and 411 (86.9%) of these listings contained at least 1 inaccuracy. Using the deficiency scoring methodology designed by the Centers for Medicare & Medicaid Services (CMS), it was found that the proportions of deficient listings were significantly different among the directories ($P < .001$). Med-QUEST had the highest weighted final deficiency score of 92.9% and HMSA had the lowest weighted final score of 49.2%. In between were United Healthcare (71.0%), 'Ohana Health Plan (69.7%), and AlohaCare (65.7%). It is unknown whether these results are an improvement from the implementation of the statute. Nevertheless, this issue can cause additional barriers for Medicaid patients who already experience narrower networks and longer wait times for dermatologists. Furthermore, it would also be worth investigating if this issue is also prevalent in listings for other specialties.

Abbreviations

CMS = Centers for Medicaid & Medicare Services

HMSA = Hawaii Medical Service Association

Med-QUEST = Medicaid program of Hawai'i, QUEST stands for Quality care, Universal access, Efficient utilization, Stabilizing costs, and Transforming the way health care is provided to QUEST members

Introduction

A 2017 review published by the Centers for Medicaid & Medicare Services (CMS) found that 52% of the provider directory locations listed in Medicare Advantage Organizations (MAOs) online directories had at least 1 inaccuracy.¹ These inaccuracies included wrong address, incorrect phone number, or the directory mistakenly indicated that the provider was accepting new patients.¹ This issue has also been found in Medicaid directories.

A study examining the accuracy of Mohs micrographic surgeons listed in state-specific Medicaid physician directories revealed that a majority of the state directories inaccurately listed the status of the surgeon's Medicaid participation.² The study concluded that in a population that already experiences

narrower networks, significantly lower acceptance rates and longer wait times among dermatologists, inaccurate physician directories can be an additional barrier to care and negatively impact health outcomes by resulting in delays to care due to perceived lack of in-network physicians.²⁻⁵

As of June 2022, enrollment in the Hawai'i Medicaid program, Med-QUEST, totaled 468 340 individuals.⁶ These individuals rely on Medicaid directories from health plan providers to make informed decisions about their health care and trust that the information they are being provided is accurate. If there are inaccuracies within Medicaid directories, they could potentially lead to frustration and doubt of the reliability of the Med-QUEST system. To see if these issues with accuracy were also prevalent in Hawai'i, this study aimed to conduct a review of the accuracy of dermatology listings in Hawai'i Medicaid directories and identify if inaccurate listings could possibly be a barrier to care for Hawai'i Medicaid recipients.

Methods

This study used publicly available online Medicaid physician directories provided by the State of Hawai'i's Med-QUEST Division and Hawai'i health plan providers ('Ohana Health Plan, AlohaCare, Hawaii Medical Service Association [HMSA], and United Healthcare) to obtain a list of QUEST-participating dermatologists. These directories were accessed during September 2022. A total of 67 providers were listed as QUEST-participating dermatologists in Hawai'i, and 497 unique listings were found. Providers were included in this study if they (1) were dermatologists, (2) had an MD or DO degree (physician assistants were excluded), (3) were listed in a QUEST plan directory, and (4) practiced in Hawai'i (including neighbor islands). Kaiser Permanente providers were not included in this study as it is a closed network.

A script was prepared to determine (1) if the included dermatologists are currently accepting new referrals for QUEST patients, (2) if the listed location and phone number is correct, and (3) if the physician's second language listed on the directory is correct. During the calls, researchers asked the questions:

- Is this the office of [provider's name]?
- Does [provider's name] see patients at this location?
- What is the address of this location?
- Does [provider's name] speak any second languages?
- Is this location currently accepting new referrals for:
- [Health plan name] QUEST patients?

A scripted telephone call was placed to each unique physician listing between December 2022 to January 2023. Calls were placed during varied times of the day during normal business hours (8:00 AM-5:00 PM) and on varied days in the week. If a clinic was successfully contacted, the clinic was marked as complete and the associated call data was recorded. The researchers documented instances when a clinic did not answer the phone or placed the caller on hold for longer than 10 minutes. If this scenario occurred on 3 different occasions, the listing was categorized as unreachable. The study's intention was made clear at the beginning of each call. The individual who answered was asked to participate in an anonymous survey for a project to assess the accuracy of physician directories.

Data collected from these calls were analyzed using a deficiency scoring methodology designed by the CMS¹ to evaluate the severity of deficiencies and provide a consistent comparison method across directories with varying numbers of provider locations.¹ The deficiencies recorded from calls were each assigned a weight between 0 and 3 points (**Table 1**). High scores (3) were assigned to deficiencies that created higher barriers to accessing care (eg, wrong phone number, wrong location, not accepting QUEST plans despite being listed as accepting QUEST plans on the directory). Low weight scores (0) were assigned to deficiencies that did not create a significant barrier to access (eg, misspelled provider name).

Each provider location with at least 1 deficiency was assigned 1 deficiency weight score. If locations had multiple deficiencies, the highest deficiency weight score was assigned. Listings with no phone number available were automatically given a score of 3. Deficiency scores for each of the directories deficient location(s) were then summed up. The CMS deficiency score methodology was used to determine a maximum possible score for each directory by multiplying the number of directory locations by 3. The directory's recorded deficiency score was then divided by this maximum possible score to create the final weighted deficiency score for each directory. This formula was used to minimize the increased likelihood of deficiencies for directories with more locations. Fisher's exact test was used to assess the difference among proportions of deficient listings. Data management and statistical analyses were performed in R version 4.0.2 (R Foundation for Statistical Computing, Vienna, Austria).

The University of Hawai'i's Institutional Review Board reviewed this study and determined it to be not human subjects research, approving the study to be conducted (2022-00650).

Deficiency	Deficiency Weight
Provider should not be listed in any of the directory-indicated locations because they do not accept QUEST at all.	3
Provider should not be listed in the directory at this location because they do not see patients at this location.	3
Provider should not be listed in the directory as treating patients for this specialty.	3
Phone number is not provided.	3
Phone number needs to be updated or is disconnected.	3
Provider is NOT accepting new referrals for this QUEST plan.	3
Provider is not practicing in the state of Hawai'i.	3
Provider is no longer practicing.	3
Address needs to be updated.	2
Address (suite number) needs to be updated.	1
Provider IS accepting new referrals for this QUEST plan.	1
Second language listed is inaccurate.	1
No errors, all information accurate.	0
Declined to participate in survey.	N/A

Adapted from the Centers for Medicare and Medicaid Services deficiency scoring methodology published in the Online Provider Directory Review Report (2017).¹ Modified to include other common deficiencies found in this study's review.

Results

A total of 497 unique listings and 67 providers were found among all directories. Four providers declined to participate in the survey, so their 24 associated listings were excluded from the review. Overall, the information from 473 listings and 63 providers were reviewed. Of the 473 listings reviewed, 411 (86.9%) had at least 1 deficiency.

Of the 411 listings, a total of 425 deficiencies were found. Out of the 425 deficiencies found, 371 deficiencies had the highest weight of "3," indicating they were more likely to be a barrier to care. These 371 deficiencies were associated with 379 listings or 80.1% of all listings reviewed (this higher number is due to some locations having multiple deficiencies). Instances where the providers should not have been listed in any of the directory-indicated locations because they did not accept QUEST health plan insurance at all made up 112 of the deficiencies (26.4%). In the other 169 instances, the provider should not have been listed at that location because they were no longer practicing (n=71, 17.3%), did not see patients at that location (n=56, 13.6%), or were not practicing in the state of Hawai'i (n=42, 10.2%). In a total of 73 instances, the phone numbers of listings were not provided (n=56, 13.2%), or disconnected/needed to be updated (n=18, 4.2%). In 16 (3.4%) instances, the addresses of listings were inaccurate. Finally, in 8 (1.7%) instances the directory indicated that the provider was accepting new referrals for the associated QUEST health plan, when

they in fact were not. **Table 2** provides a detailed summary of the deficiencies that were identified in this review.

State of Hawai‘i Med-QUEST Division

Analysis revealed that the proportions of deficient listings among the directories was statistically significant ($P<.001$). As displayed in **Table 3** and **Figure 1**, the State of Hawai‘i Med-QUEST Division online directory had 315 listings reviewed with 305 (96.8%) having 1 or more deficiencies. This directory had the most listings because it contains listings and dermatologists from all health plans in the state of Hawai‘i. The sum total of the Med-QUEST Division’s deficiency score was 878 out of a maximum possible deficiency score of 945, resulting in the highest weighted final score of 92.9%.

‘Ohana Health Plan

The ‘Ohana Health Plan online directory had 33 total listings with 24 (72.7%) containing a deficiency. The total of this directory’s deficiency score was 69 out of 99 for a final score of 69.7%.

United Healthcare

United Healthcare’s QUEST directory contained 46 listings with 35 (76.1%) having an associated deficiency. The sum of United Healthcare’s deficiency score was 98 out of 138 and a final score of 71.0%.

AlohaCare

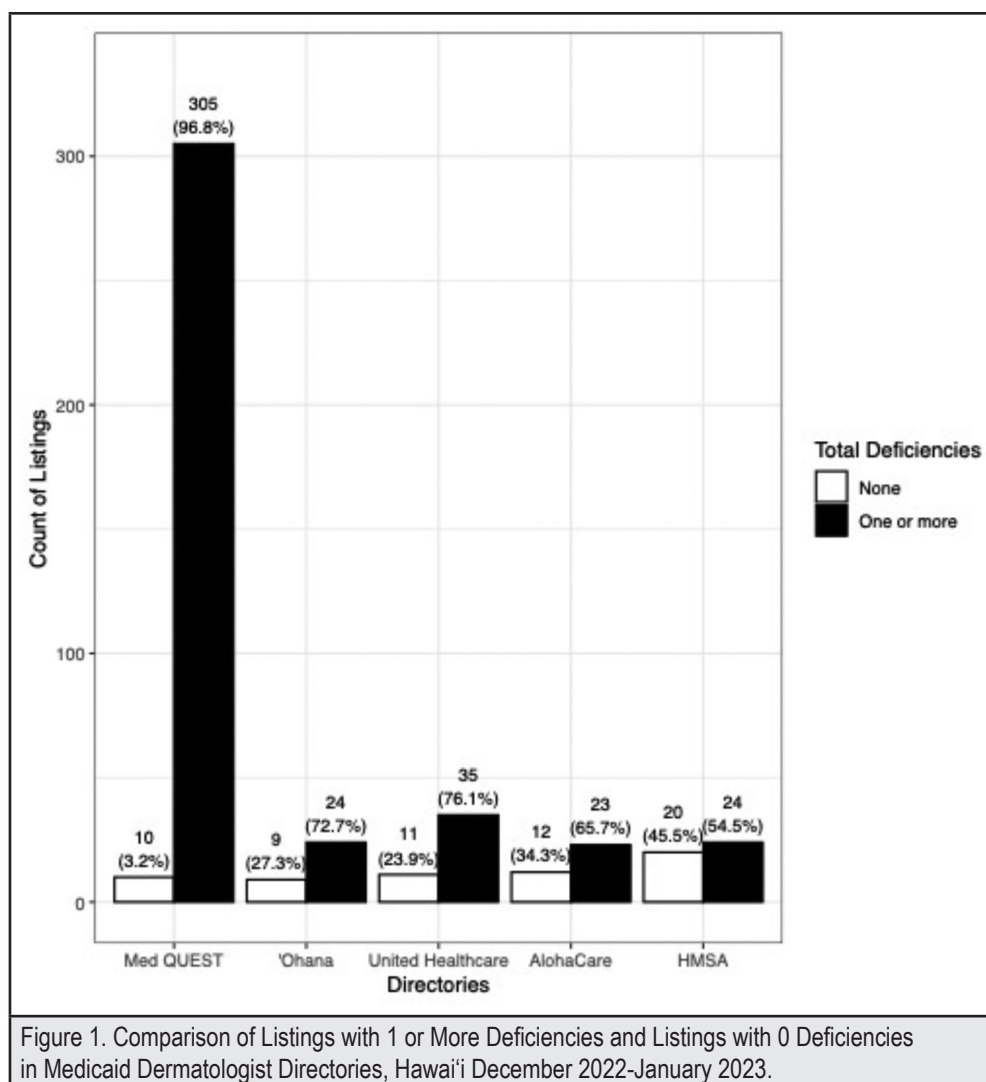
AlohaCare had 23 (65.7%) deficient listings out of 35 total listings, receiving a deficiency score of 69 from a possible score of 105 for a final score of 65.7%.

HMSA

HMSA had the lowest final score of 49.2%. Twenty-four (54.5%) out of its 44 listings had a deficiency, giving HMSA a total score of 65 out of a possible 132.

Table 2. Types of Medicaid Dermatologist Directory Deficiencies Encountered Ordered by Number of Occurrences, Hawai‘i December 2022-January 2023		
Deficiency Type	Number of Deficiencies Identified	Percentage of Deficiencies
Provider should not be listed in any of the directory-indicated locations because they do not accept QUEST at all.	112	26.4
Provider is no longer practicing.	71	16.7
Provider should not be listed in the directory at this location because they do not see patients at this location.	56	13.2
Phone number is not provided.	56	13.2
Provider is NOT practicing in the state of Hawai‘i.	42	9.9
Phone number needs to be updated or is disconnected.	18	4.2
Provider IS accepting new referrals for this QUEST plan.	16	3.8
Address needs to be updated.	16	3.8
Provider should not be listed in the directory as treating patients for this specialty.	16	3.8
Second language listed is inaccurate.	10	2.4
Provider is NOT accepting new referrals for this QUEST plan.	8	1.9
Address (suite number) needs to be updated.	4	0.9
Total	425	100

Table 3. Sum of Deficiency Scores and Weighted Final Deficiency Scores (%) of Medicaid Dermatologist Directories, Hawai‘i December 2022-January 2023					
Directory	Total Listings	Deficient Listings	Sum of Deficiency Scores	Maximum Deficiency Score	Weighted Final Score (%)
Med-QUEST	315	305	878	945	92.9
‘Ohana	33	24	69	99	69.7
United Healthcare	46	35	98	138	71
AlohaCare	35	23	69	105	65.7
HMSA	44	24	65	132	49.2



Discussion

This study reveals that inaccurate provider directories continue to be an ongoing problem despite the implementation regulatory laws. Dermatologists only make up a fraction of the listings in these directories, yet 86.9% of dermatology listings contained a deficiency. Medicaid patients already face narrower networks and longer wait times when it comes to securing an appointment with a dermatologist.⁷ The addition of inaccuracies in provider directories can make the process even more difficult and frustrating.

This review found that for almost a quarter of the listings, the provider was incorrectly listed as accepting Medicaid referrals when they did not accept Medicaid insurance at all. A possible explanation for this error is that the provider may have accepted Medicaid referrals at some point, but was no longer accepting referrals at the time of the call. However, at some locations, the callers were notified that the provider had in fact never

participated in Medicaid, raising the concern of how they ended up listed in Medicaid online directories if this was never true.

Another common problem found was locations listing providers who did not practice there. In several instances, researchers were told that the provider had been retired for more than a year or had never practiced at that location, with some locations being unrelated medical practices or businesses. Another common situation that was seen during this review was group practices with multiple locations having every physician in the practice listed at every location even if this was not the case. This calls into question how often these directories are being updated and if there is a mutual understanding between the clinic and health plan on what is considered “accurate” information.

Inaccurate phone numbers were also a significant issue with directories providing personal phone numbers of unrelated individuals or businesses. For many patients, phone calls are usually the first point of contact to a provider to inquire about

health plan participation or make an appointment. If the patient is unable to complete that call, this can further narrow their provider options and increase difficulties in accessing care.

The deficiency of providers not accepting new QUEST referrals despite being shown as accepting was one of the deficiencies with the lowest incidences. In the context of directory inaccuracies, compared to the previously high weighted deficiencies, this error is not a significant contributor to the limited access to care. In contrast, errors where physicians actually were accepting Medicaid when the directory stated they were not, had twice as many instances (3.8% vs 1.9%). Although it was weighted less, being listed as not accepting new QUEST referrals when the clinic actually is can deter patients from contacting the clinic and further limit their options.

Unfortunately, this study revealed that highly weighted deficiencies were the most common errors among dermatology listings in provider directories. This suggests that these provider directories are not serving their purpose both for patients and dermatologists. At minimum, patients will feel inconvenienced by these errors and feel dissatisfied with their health plan. On the other end of the spectrum, patients may experience delays to care, resulting in poor health outcomes. Additionally, patients run the risk of having to pay out-of-pocket for care if they mistakenly use a physician who was not actually in-network. These inaccuracies can also negatively affect the clinic as inaccurate listings may limit their access to potential new patients.

Possible Solution

The issue of errors in provider directories is not a new one. As of 2016, about 38 states have regulations requiring directories to keep listings “up to date” or updated at least once a year.⁸ Hawai‘i is one of these states. HI Rev Stat § 431:26-105 (2020) states that a health plan should update its provider directories at least monthly and periodically audit a portion of its directories to ensure accuracy.⁹ This study shows that even with this regulation, Hawai‘i provider directories may still contain a high rate of errors, implying that the 2020 statute alone was not enough to fix the issue and there may be other contributing factors.

In 2017, the American Medical Association (AMA) and Lexis-Nexis Risk Solutions surveyed 700 physicians regarding network directory accuracy.¹⁰ Fifty-two percent of physicians surveyed said they have had patients with health insurance coverage issues that were attributed to incorrect listings and 89% stated it was important to be accurately presented in directories. Seventy-nine percent were unaware of the regulations requiring plans to keep their directory data up to date.

While the new mandates were meant to alleviate the problem, they may have potentially exacerbated the issue. On average,

a physician practice has about 20 plan contracts, so physicians are already receiving multiple requests from multiple plans through fax, email, phone, and a variety of other methods to verify their data, increasing the chance of errors, especially if the requests are being answered by different staff.^{10,11} With plans being required to update their directories once to multiple times a year, the new mandates may have increased the administrative burden of physician practices. In a survey of 1240 physician practices conducted by the Council for Affordable Quality Healthcare (CAQH), it was found that practices spend at least 1 day per week on directory maintenance, costing about \$63 004 a year for staff salary, benefits, and overhead.¹¹ The efforts allocated toward directory maintenance are part of the larger issue of health care waste-related costs due to administrative complexity, which has been estimated to be about \$265.6 billion annually.¹²

Sixty seven percent of physicians said they would prefer a proposed solution to create a single interface where physicians can review and update their information for multiple directories at once.¹⁰ Implementing such a solution for Hawai‘i physicians could be beneficial for both practices and patients. Practices can reduce costs related to administrative complexities and for patients, the barrier to care related to directory errors can be reduced.

In addition to streamlining the data gathering process, it would also be helpful to define who is considered a “Medicaid-participating physician.” For some physicians, Medicaid patients may only make up a handful of their patient base, while for others, Medicaid patients make up the majority of their patient base. There are also practices that stop accepting Medicaid patients after they have reached a certain percentage of their practice. Defining this will help decrease the number of doctors mistakenly listed as accepting Medicaid referrals and ease the confusion and frustration patients may feel when using directories.

Limitations

This study was completed during a 4-month time frame, so plans may have updated their directories or added new physicians during that time period. It is also unknown if the current state of the directories has improved or worsened as no previous study was conducted prior to the implementation of the state’s statute regulating provider directories. The team is also unable to assess if these findings are generalizable to the directories as a whole as it only reviewed dermatology listings. Additionally, listings with no phone number were automatically given a deficiency score of 3. A number from another listing was not used to verify the other information in the listing. This would not have affected the overall deficiency score of the directory in Table 3, but it would have affected the number of occurrences for each error in Table 2.

Conclusion

This study's findings demonstrate that dermatology listings in Hawai'i Medicaid physician directories contain high error rates, even after the statute regulating provider directories was enacted. These inaccuracies were found in all Medicaid directories provided by the major health plan carriers surveyed in Hawai'i (excluding Kaiser). Although this study focused on dermatology listings, in future studies, it would be valuable to include other specialties listed. While the regulations and articles regarding directory errors have been focused on the health plan, practices should also be involved in providing their information in a timely manner, especially if there are any changes, as health plans rely on practices for their data.

Conflict of Interest

None of the authors identify a conflict of interest.

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References

1. Online Provider Directory Review Report. Centers for Medicare and Medicaid Services (CMS). Published August 25, 2020. Accessed June 5, 2022. <https://www.hhs.gov/guidance/document/online-provider-directory-review-report-final>.
2. Beltrami EJ, Hooper J, Kodumudi V, Feng H. Accuracy of Medicaid physician directories of surgeons performing Mohs micrographic surgery. *J Am Acad Dermatol*. 2022;87(5):1153-1155. <https://doi.org/10.1016/j.jaad.2022.02.026>
3. Resneck J Jr, Pletcher MJ, Lozano N. Medicare, Medicaid, and access to dermatologists: the effect of patient insurance on appointment access and wait times. *J Am Acad Dermatol*. 2004;50(1):85-92. [https://doi.org/10.1016/s0190-9622\(03\)02463-0](https://doi.org/10.1016/s0190-9622(03)02463-0)
4. Creadore A, Desai S, Li SJ, et al. Insurance acceptance, appointment wait time, and dermatologist access across practice types in the US. *JAMA Dermatol*. 2021;157(2):181-188. <https://doi.org/10.1001/jamadermatol.2020.5173>
5. Resneck JS Jr, Isenstein A, Kimball AB. Few Medicaid and uninsured patients are accessing dermatologists. *J Am Acad Dermatol*. 2006;55(6):1084-1088. <https://doi.org/10.1016/j.jaad.2006.07.012>
6. 2022 Hawai'i Medicaid Managed Care Enrollment. State of Hawai'i Department of Human Services Med-QUEST Division. Published September 13, 2022. Accessed December 10, 2022. <https://medquest.hawaii.gov/content/dam/formsanddocuments/resources/enrollment-reports/Website%20Enrollment%20Report%202022%2020220913.pdf>
7. Resneck JS Jr, Quiggle A, Liu M, Brewster DW. The accuracy of dermatology network physician directories posted by Medicare Advantage health plans in an era of narrow networks. *JAMA Dermatol*. 2014;150(12):1290-1297. <https://doi.org/10.1001/jamadermatol.2014.3902>
8. The State of Provider Directory Accuracy. LexisNexis® Risk Solutions and American Medical Association. Published 2016. Accessed 26 February 2023. <https://risk.lexisnexis.com/-/media/files/healthcare/infographics/state-of-provider-directory-accuracy-infographic-2016%20pdf.pdf>
9. Health Benefit Plan Network Access and Adequacy, S 431, 105th Cong, 26th Session (2020). Accessed 26 February 2023. https://www.capitol.hawaii.gov/hrscurrent/Vol09_Ch0431-0435H/HRS0431/HRS_0431-0026-0105.htm
10. Physician Survey Reveals Need for Physicians and Health Plans to Work Together to Ensure Better Network Directory Accuracy. GlobalNewsWire by notified. Published February 27, 2018. Accessed February 26, 2023. <https://www.globenewswire.com/news-release/2018/02/27/1396149/0/en/Physician-Survey-Reveals-Need-for-Physicians-and-Health-Plans-to-Work-Together-to-Ensure-Better-Network-Directory-Accuracy.html>
11. CAQH® Explorations. The Hidden Causes of Inaccurate Provider Directories. Published November 2019. Accessed 26 February 2023. <https://www.caqh.org/sites/default/files/explorations/CAQH-hidden-causes-provider-directories-whitepaper.pdf>
12. Shrank WH, Rogstad TL, Parekh N. Waste in the US health care system: Estimated costs and potential for savings. *JAMA*. 2019;322(15):1501-1509. <https://doi.org/10.1001/jama.2019.13978>