

Department of Health and Human Services

**OFFICE OF  
INSPECTOR GENERAL**

**AN ESTIMATED 91 PERCENT OF  
NURSING HOME STAFF NATIONWIDE  
RECEIVED THE REQUIRED COVID-19  
VACCINE DOSES, AND AN ESTIMATED  
56 PERCENT OF STAFF NATIONWIDE  
RECEIVED A BOOSTER DOSE**

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# ***Office of Inspector General***

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## Report in Brief

Date: June 2022

Report No. A-09-22-02003

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES  
**OFFICE OF INSPECTOR GENERAL**



### Why OIG Did This Audit

The COVID-19 pandemic has hit nursing homes particularly hard. To reduce the spread of COVID-19 in nursing homes, the Centers for Medicare & Medicaid Services amended the infection control requirements for nursing homes to include a requirement for nursing homes to ensure that staff received all of the required COVID-19 vaccine doses (i.e., a single-dose vaccine or all required doses of a multidose vaccine) except for individuals granted an exemption from receiving the vaccine or individuals whose vaccination had to be delayed. Our objective was to identify the COVID-19 vaccination status of nursing home staff as of the week ended March 27, 2022.

### How OIG Did This Audit

We used a stratified multistage design to select a sample of nursing home staff nationwide. We stratified the sampling frame of 15,224 nursing homes nationwide into 10 strata based on the nursing homes' locations and randomly selected 10 nursing homes from each stratum. From each of the 100 sampled nursing homes, we obtained a list of staff members who were subject to the vaccination requirements and randomly selected 10 staff members. For each of the 1,000 sampled staff members, we reviewed documentation that nursing homes provided to determine whether the staff member had received the required vaccine doses, had received a booster dose, or had requested or had been granted an exemption from receiving the vaccine.

## An Estimated 91 Percent of Nursing Home Staff Nationwide Received the Required COVID-19 Vaccine Doses, and an Estimated 56 Percent of Staff Nationwide Received a Booster Dose

### What OIG Found

As of the week ended March 27, 2022, we determined for the 1,000 nursing home staff members in our sample that 884 had received the required vaccine doses (506 of these staff members had also received a booster dose); 78 had been granted an exemption from receiving the vaccine based on a sincerely held religious belief, practice, or observance (religious exemption); 12 were partially vaccinated; 3 had been granted an exemption from receiving the vaccine based on a medical condition (medical exemption); and 3 had applied for an exemption that was being reviewed by a nursing home. For the remaining 20 staff members in our sample, the nursing homes did not provide us with documentation related to the staff members' vaccination status, or the documentation provided did not clearly identify the staff members' vaccination status. As a result, we were not able to determine the vaccination status of these staff members.

On the basis of our sample results, we estimated that 91 percent of staff nationwide had received the required vaccine doses, 56 percent of staff nationwide had received a booster dose, and 6 percent of staff nationwide had been granted a religious exemption. We did not estimate the percentages among the small number of staff members (i.e., 38) in our nationwide sample results who were partially vaccinated, who were granted a medical exemption, who applied for an exemption that was being reviewed, or for whom the vaccination status could not be determined.

In addition, the estimated percentages of staff who received the required vaccine doses, staff who received a booster dose, and staff who were granted a religious exemption varied depending on the locations (i.e., Department of Health and Human Services regions) of the nursing homes in which they worked.

### What OIG Recommends

This report includes no recommendations. The results of this audit present a snapshot of the COVID-19 vaccination status of nursing home staff nationwide at a specific point in time.

## TABLE OF CONTENTS

INTRODUCTION.....	1
Why We Did This Audit.....	1
Objective .....	2
Background .....	2
COVID-19’s Impact on Nursing Homes .....	2
Federal Health and Safety Requirements To Reduce the Spread of COVID-19 in Nursing Homes .....	3
Federal Requirements for COVID-19 Vaccination of Nursing Home Staff.....	4
Federal Requirements for Nursing Homes To Track and Document the COVID-19 Vaccination Status of Staff .....	6
How We Conducted This Audit.....	7
RESULTS OF AUDIT .....	9
Federal Requirements .....	10
An Estimated 91 Percent of Nursing Home Staff Nationwide Received the Required Vaccine Doses, and an Estimated 56 Percent of Staff Nationwide Received a Booster Dose .....	10
An Estimated 6 Percent of Nursing Home Staff Nationwide Were Granted a Religious Exemption .....	11
The Estimated Percentages of Nursing Home Staff Who Received the Required Vaccine Doses, Who Received a Booster Dose, and Who Were Granted a Religious Exemption Varied Among HHS Regions .....	11
Variations in the Percentage of Nursing Home Staff Who Received the Required Vaccine Doses.....	12
Variations in the Percentage of Nursing Home Staff Who Received a Booster Dose.....	13
Variations in the Percentage of Nursing Home Staff Who Were Granted a Religious Exemption.....	14
CONCLUSION.....	14

APPENDICES

A: Audit Scope and Methodology ..... 16

B: Statistical Sampling Methodology ..... 19

C: Sample Results and Estimates ..... 21

## INTRODUCTION

### WHY WE DID THIS AUDIT

The COVID-19 pandemic has had a significant impact on nursing homes, resulting in the deaths of approximately 152,000 nursing home residents and approximately 2,400 nursing home staff.<sup>1</sup> As part of its efforts to protect the health and safety of residents and staff and to reduce the spread of COVID-19 in nursing homes, the Centers for Medicare & Medicaid Services (CMS) established COVID-19 vaccination requirements for nursing homes and their staff.<sup>2</sup> Nursing homes are required to ensure that staff received all of the required vaccine doses in a primary series of a COVID-19 vaccination (i.e., completed the primary vaccination series) except for individuals granted an exemption from receiving the vaccine or individuals whose vaccination had to be delayed because of clinical precautions and considerations, such as individuals having a moderate or severe acute illness.<sup>3, 4</sup> Allowable exemptions include those that are granted based on a recognized medical condition for which the COVID-19 vaccines are contraindicated or based on an applicable Federal law.<sup>5</sup> Additionally, nursing homes are required to track and document the COVID-19 vaccination status of all staff members, including the status of any staff member who received a booster dose as well as information provided by any staff member who requested or was granted any exemption from receiving the vaccine.<sup>6, 7</sup>

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<sup>1</sup> This number of deaths was current as of the week ended March 27, 2022. These data may not include the number of deaths before May 2020 because nursing homes were not required to report the data before May 2020. Available at <https://data.cms.gov/covid-19/covid-19-nursing-home-data>. Accessed on Apr. 11, 2022.

<sup>2</sup> The vaccination requirements were added to Federal regulations at 42 CFR § 483.80 (86 Fed. Reg. 61555, 61619 (Nov. 5, 2021)).

<sup>3</sup> The completion of a primary vaccination series for COVID-19 is defined as the administration of a single-dose vaccine or the administration of all required doses of a multidose vaccine. Staff are considered “fully vaccinated” 2 weeks or more after completing a primary vaccination series. 42 CFR § 483.80(i).

<sup>4</sup> The date by which States were required to implement the vaccination requirements varied by State. The latest effective date was March 21, 2022. CMS explained its decision to delay the effective date of the requirements in *External FAQ: CMS Omnibus COVID-19 Health Care Staff Vaccination Interim Final Rule*. Available at <https://www.cms.gov/files/document/cms-omnibus-covid-19-health-care-staff-vaccination-requirements-2021.pdf>. Accessed on Apr. 13, 2022.

<sup>5</sup> 42 CFR §§ 483.80(i)(3)(vi) and (viii). Under Federal law, including the Americans with Disabilities Act (ADA) and Title VII of the Civil Rights Act of 1964, workers who cannot be vaccinated because of an ADA disability, a medical condition, or a sincerely held religious belief, practice, or observance, or as specified by other Federal law, may in some circumstances be granted an exemption (86 Fed. Reg. 61555, 61572 (Nov. 5, 2021)).

<sup>6</sup> A booster dose of a vaccine is administered to enhance or restore protection that might have waned over time after completion of a primary vaccination series. Available at <https://www.cdc.gov/vaccines/covid-19/clinical-considerations/interim-considerations-us.html#recommendations>. Accessed on Apr. 25, 2022.

<sup>7</sup> 42 CFR § 483.80(i)(3).

Recent nursing home data reported by CMS showed that approximately 87 percent of nursing home staff nationwide had received the required COVID-19 vaccine doses, and approximately 46 percent of nursing home staff nationwide had received a booster dose.<sup>8</sup> We conducted this nationwide audit to provide an independent analysis of nursing home staff members' COVID-19 vaccination status and to support CMS's efforts to protect the health and safety of nursing home residents and staff. This audit provides CMS and other decisionmakers (e.g., Congress) with a snapshot of the vaccination status of nursing home staff nationwide at a specific point in time (i.e., as of the week ended March 27, 2022) based on our review of nursing homes' documentation and discussions we had with nursing home officials. This audit is not an assessment of nursing homes' determinations of the vaccination status of their staff members, nursing homes' reporting of the vaccination status of their staff members to the Centers for Disease Control and Prevention's (CDC's) National Healthcare Safety Network (NHSN), or CMS's oversight of nursing homes' compliance with the vaccination requirements.

COVID-19 has created extraordinary challenges for the delivery of health care and human services to the American people. As the oversight agency for the Department of Health and Human Services (HHS), the Office of Inspector General (OIG) oversees HHS's COVID-19 response and recovery efforts. This audit is part of OIG's COVID-19 response strategic plan.<sup>9</sup>

## **OBJECTIVE**

Our objective was to identify the COVID-19 vaccination status of nursing home staff as of the week ended March 27, 2022.

## **BACKGROUND**

### **COVID-19's Impact on Nursing Homes**

The COVID-19 pandemic has hit nursing homes particularly hard. The highly contagious nature of COVID-19, the close quarters in which nursing home residents live, and the direct, frequent contact that most nursing home staff have with residents as well as individuals from the surrounding community have put residents and staff at an elevated risk of infection. Residents, who tend to be older and to have severe underlying medical conditions (such as heart disease, diabetes, or dementia), are at higher risk for developing more serious complications or dying from COVID-19. As of March 27, 2022, nursing home residents had accounted for more than

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<sup>8</sup> Nursing homes are required to report on a weekly basis COVID-19-related information to the Centers for Disease Control and Prevention's (CDC's) National Healthcare Safety Network, a health-care-associated infection tracking system. Each week, CDC aggregates the reported information and sends the data to CMS for posting on CMS websites. The percentages of nursing home staff who had received the required vaccine doses and received a booster dose were as of the week ended March 27, 2022. Available at <https://data.cms.gov/covid-19/covid-19-nursing-home-data>. Accessed on Apr. 11, 2022.

<sup>9</sup> OIG's COVID-19 response strategic plan and oversight activities can be accessed at <https://oig.hhs.gov/coronavirus/index.asp>.



1 million confirmed COVID-19 cases and approximately 152,000 COVID-19-related deaths in the United States, and nursing home staff had accounted for approximately 1.1 million confirmed cases and approximately 2,400 deaths.<sup>10</sup>

### **Federal Health and Safety Requirements To Reduce the Spread of COVID-19 in Nursing Homes**

Nursing homes are required to comply with health and safety requirements in Federal regulations (42 CFR part 483, subpart B) to receive payments under the Medicare and Medicaid programs. The regulations require nursing homes to establish and maintain an infection prevention and control program designed to provide a safe, sanitary, and comfortable environment and to help prevent the development and transmission of communicable diseases and infections (e.g., COVID-19).<sup>11</sup>

CMS amended the infection control requirements in the regulations through a series of interim final rules to protect the health and safety of residents and staff and to reduce the spread of COVID-19 in nursing homes.<sup>12</sup> Beginning in May 2020, CMS required nursing homes to report no less than weekly to the NHSN the number of all COVID-19 cases (suspected and confirmed) and related deaths among residents and staff, with other information.<sup>13</sup> CMS amended the requirements again in September 2020 to require nursing homes to test all residents and staff for COVID-19.<sup>14</sup> In May 2021, CMS required nursing homes to, among other things, offer the COVID-19 vaccine to residents and staff and report to the NHSN the COVID-19 vaccination status of residents and staff.<sup>15</sup> In November 2021, CMS established COVID-19 vaccination requirements for nursing homes and their staff.<sup>16</sup> (Some States implemented their own COVID-19 vaccination requirements for health care workers in their States before CMS established the vaccination requirements.)

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<sup>10</sup> The numbers of confirmed cases and deaths were current as of the week ended March 27, 2022. These data may not include the numbers of cases or deaths before May 2020 because nursing homes were not required to report the data before May 2020. Available at <https://data.cms.gov/covid-19/covid-19-nursing-home-data>. Accessed on Apr. 11, 2022.

<sup>11</sup> 42 CFR § 483.80.

<sup>12</sup> To implement the vaccination requirements in a timely manner, CMS issued the interim final rules without first publishing proposed rules and providing for comment periods during which stakeholders could submit comments on the proposed rules.

<sup>13</sup> 85 Fed. Reg. 27550, 27601 (May 8, 2020).

<sup>14</sup> 85 Fed. Reg. 54820, 54851 (Sept. 2, 2020).

<sup>15</sup> CMS also required nursing homes to educate residents and staff on the benefits and risks of the COVID-19 vaccines. 86 Fed. Reg. 26306, 26312 (May 13, 2021).

<sup>16</sup> 86 Fed. Reg. 61555, 61569–70 (Nov. 5, 2021).

## Federal Requirements for COVID-19 Vaccination of Nursing Home Staff

Federal regulations require that nursing homes ensure that all staff receive the required COVID-19 vaccine doses except for individuals granted an exemption from receiving the vaccine or individuals whose vaccination had to be delayed because of clinical precautions and considerations, such as individuals having a moderate or severe acute illness.<sup>17</sup> Receipt of the required vaccine doses refers to the completion of a primary vaccination series for COVID-19, which is defined as the administration of a single-dose vaccine or the administration of all required doses of a multidose vaccine.

Although not required, a booster dose is recommended to help increase, or boost, the immunity that people have after receiving the required vaccine doses.<sup>18</sup>

### *Exemptions From Receiving a COVID-19 Vaccine*

COVID-19 vaccination requirements allow for nursing home staff to request an exemption from receiving a vaccine based on a recognized medical condition for which the COVID-19 vaccines are contraindicated (referred to as a “medical exemption”) or based on an applicable Federal law.<sup>19</sup> Under Federal law, workers who cannot be vaccinated because of a disability, a medical condition, or a sincerely held religious belief, practice, or observance may, in some circumstances, be granted an exemption.<sup>20</sup> In this report, we refer to an exemption based on a sincerely held religious belief, practice, or observance as a “religious exemption.”

### COVID-19 Vaccines

As of March 27, 2022, three vaccines had been approved or authorized for use in the United States to protect people from getting seriously ill or dying from COVID-19: Pfizer-BioNTech (COMIRNATY), Moderna (SPIKEVAX), and Johnson & Johnson/Janssen. The Pfizer-BioNTech and Moderna vaccines are multidose (i.e., two-dose) vaccines, and the Johnson & Johnson/Janssen vaccine is a single-dose vaccine.

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<sup>17</sup> 42 CFR § 483.80(i)(3)(ii). CDC provided health care professionals and public health officials with information on clinical precautions and considerations at <https://www.cdc.gov/vaccines/covid-19/clinical-considerations/interim-considerations-us.html#contraindications>. Accessed on Apr. 25, 2022.

<sup>18</sup> Available at <https://www.cdc.gov/vaccines/covid-19/clinical-considerations/interim-considerations-us.html#recommendations>. Accessed on Apr. 25, 2022.

<sup>19</sup> Clinical contraindications are conditions in a COVID-19 vaccine recipient that preclude the administration of the vaccine because of an increased risk for a serious adverse reaction to vaccination and include, among other things, a history of a severe allergic reaction after a previous dose or to a component of the COVID-19 vaccine and a known, diagnosed allergy to a component of the COVID-19 vaccine. Available at <https://www.cms.gov/files/document/attachment-ltc-injunction-lifted.pdf>. Accessed on May 10, 2022.

<sup>20</sup> For the purpose of the vaccination requirements, a disability must meet the definition of a disability as defined in the ADA, P.L. No. 101-336 (86 Fed. Reg. 61555, 61572 (Nov. 5, 2021)).

### *Staff to Which the Vaccination Requirements Apply*

For the purpose of the vaccination requirements, staff are defined as individuals who provide any care, treatment, or other services for a facility or its residents, including employees; licensed practitioners; students, trainees, and volunteers; and other individuals, under contract or another arrangement, who provide care, treatment, or other services for a facility or its residents.<sup>21</sup> These staff include administrative staff, facility leadership, members of a board of directors, and housekeeping and food services staff.<sup>22</sup>

The vaccination requirements apply to most staff who work at a nursing home, regardless of clinical responsibility or resident contact. However, the requirements do not apply to staff who: (1) exclusively provide telehealth or telemedicine services outside of the nursing home and who do not have any direct contact with residents and other staff, and (2) provide support services that are performed exclusively outside of the nursing home and who do not have any direct contact with residents and other staff.<sup>23</sup>

### *Phases of Implementation of the Vaccination Requirements*

Initially, the vaccination requirements were effective in two phases:<sup>24</sup>

- *Phase 1:* By December 6, 2021, all staff were required to: (1) have received a single-dose COVID-19 vaccine or received the first dose of a multidose COVID-19 vaccine, or (2) have requested or have been granted an exemption from receiving the vaccine.
- *Phase 2:* By January 4, 2022, all staff were required to have received all of the required vaccine doses except for individuals granted an exemption from receiving the vaccine or individuals whose vaccination had to be delayed because of clinical precautions and considerations.

However, CMS delayed implementation of the vaccination requirements after U.S. district courts issued separate preliminary injunctions to stop the implementation and enforcement of the requirements in all of the States.<sup>25</sup> A Federal appeals court then narrowed the injunction that covered all States, allowing CMS to reinstate the requirements for the 25 States that were not party to the injunctions granted by U.S. district courts in Missouri, Louisiana, and Texas. As

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<sup>21</sup> 42 CFR § 483.80(i)(1).

<sup>22</sup> 86 Fed. Reg. 61555, 61570 (Nov. 5, 2021).

<sup>23</sup> 42 CFR § 483.80(i)(2).

<sup>24</sup> 86 Fed. Reg. 61555, 61573 (Nov. 5, 2021).

<sup>25</sup> CMS Memo to State Survey Agency (SSA) Directors, QSO-22-04-ALL (Dec. 2, 2021).

a result, CMS revised the effective dates of the requirements for those States.<sup>26</sup> CMS informed those States that the revised date for Phase 1 was January 27, 2022, and for Phase 2 was February 28, 2022.

On January 13, 2022, the U.S. Supreme Court ruled that the vaccination requirements could be enforced in 24 States that were party to the Missouri and Louisiana court rulings. Consequently, CMS informed those States that the effective date for Phase 1 was February 14, 2022, and for Phase 2 was March 15, 2022.<sup>27</sup> On January 19, 2022, a U.S. district court in Texas dismissed the lawsuit filed by the State of Texas, thereby allowing the vaccination requirements to be enforced in Texas. As a result, for Texas, CMS revised the effective date for Phase 1 to February 22, 2022, and for Phase 2 to March 21, 2022.<sup>28</sup>

### **Federal Requirements for Nursing Homes To Track and Document the COVID-19 Vaccination Status of Staff**

Federal regulations require nursing homes to track and document the COVID-19 vaccination status of all staff, including the status of any staff member who received a booster dose and information provided by those staff who requested or were granted any exemption from receiving the vaccine.<sup>29</sup> Additionally, nursing homes are required to maintain documentation of their staff members' COVID-19 vaccination status.<sup>30</sup> CMS provided the following examples as acceptable forms of proof of vaccination: (1) a COVID-19 vaccination card (or a legible photograph of the card), (2) documentation of vaccination from a health care provider or an electronic health record, and (3) an immunization record from a State immunization information system.<sup>31</sup> According to CMS officials, self-attested documentation (e.g., a signed statement or an email from a staff member indicating when and where the individual received the COVID-19 vaccine) would not be acceptable proof of vaccination.

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<sup>26</sup> CMS Memo to SSA Directors, QSO-22-07-ALL (Dec. 28, 2021). The preliminary injunctions granted by U.S. district courts in Missouri, Louisiana, and Texas stopped the implementation and enforcement of the vaccination requirements in the following 25 States: Alabama, Alaska, Arizona, Arkansas, Georgia, Idaho, Indiana, Iowa, Kansas, Kentucky, Louisiana, Mississippi, Missouri, Montana, Nebraska, New Hampshire, North Dakota, Ohio, Oklahoma, South Carolina, South Dakota, Texas, Utah, West Virginia, and Wyoming.

<sup>27</sup> CMS Memo to SSA Directors, QSO-22-09-ALL (Jan. 14, 2022).

<sup>28</sup> Available at <https://www.cms.gov/sites/default/files/2022-01/IFC-6-ImplementationTimeline-508.pdf>. Accessed on Jan. 21, 2022.

<sup>29</sup> 42 CFR § 483.80(i)(3).

<sup>30</sup> 42 CFR § 483.80(d)(3)(vii)(C).

<sup>31</sup> 86 Fed. Reg. 61555, 61572 (Nov. 5, 2021).

## HOW WE CONDUCTED THIS AUDIT

As of March 1, 2022, there were 15,224 Medicare- and Medicaid-certified nursing homes nationwide.<sup>32</sup> Our audit covered the COVID-19 vaccination status of nursing home staff at these nursing homes as of the week ended March 27, 2022.

We used a stratified multistage design to select a sample of nursing home staff nationwide (from the 50 States and the District of Columbia). We stratified the sampling frame of the 15,224 nursing homes into 10 strata based on the nursing homes' locations.<sup>33</sup> From each stratum, we randomly selected 10 nursing homes, for a total of 100 sampled nursing homes. The map in Figure 1 shows the States covered by the 10 strata, and the orange dots show the locations of the 100 nursing homes that were randomly selected for our sample.

**Figure 1: Locations of the 100 Sampled Nursing Homes**



From each of the 100 sampled nursing homes, we obtained a list of staff members who were subject to the vaccination requirements as of the week ended March 27, 2022. From each list of staff members, we randomly selected 10 staff members, for a total of 1,000 sampled staff members.

<sup>32</sup> As of March 1, 2022, these nursing homes had more than 1.6 million licensed beds and approximately 1.1 million residents. Available at <https://data.cms.gov/provider-data/dataset/4pg5-n9py>. Accessed on Mar. 1, 2022.

<sup>33</sup> The 10 strata represented the 10 HHS regions across the country. The HHS regions are shown at <https://www.hhs.gov/about/agencies/iea/regional-offices/index.html>. Accessed on Mar. 1, 2022.

For each of the 1,000 staff members in our sample, we requested from a nursing home documentation of the staff member's COVID-19 vaccination status as of the week ended March 27, 2022. From March 28 through April 22, 2022, we reviewed the documentation to determine whether the staff member: (1) had received the required vaccine doses, (2) had received a booster dose, or (3) had requested or had been granted an exemption from receiving the vaccine.<sup>34</sup> Specifically, we reviewed vaccination documentation (e.g., COVID-19 vaccination cards and vaccination records from health care providers or State immunization information systems) to determine whether the following information was documented: (1) the name of the staff member who received the vaccine; (2) the number of the vaccine dose (i.e., first, second, or third dose); (3) the name of the vaccine; and (4) the date on which each vaccine dose was received. Additionally, we reviewed the documentation related to a staff member's request for an exemption to determine the type of exemption requested and whether the nursing home had granted the exemption.

In this report, we refer to staff who had received only one dose of the multidose Pfizer-BioNTech or Moderna vaccines as "partially vaccinated." In instances when a nursing home did not provide us with documentation or the documentation did not clearly identify a staff member's vaccination status, we considered the vaccination status of that staff member as undeterminable.

We conducted this nationwide audit to provide an independent analysis of nursing home staff members' COVID-19 vaccination status and to support CMS's efforts to protect the health and safety of nursing home residents and staff. This audit provides CMS and other decisionmakers (e.g., Congress) with a snapshot of the vaccination status of nursing home staff nationwide at a specific point in time (i.e., as of the week ended March 27, 2022) based on our review of nursing homes' documentation and discussions we had with officials (e.g., administrators, infection preventionists, and directors of nursing) from the nursing homes in our sample.

This audit is not an assessment of nursing homes' determinations of the vaccination status of their staff members (including exemptions that the nursing homes granted staff members), nursing homes' reporting of the vaccination status of their staff members to the NHSN, or CMS's oversight of nursing homes' compliance with the vaccination requirements. As a result, we did not assess CMS's or the nursing homes' internal controls related to the vaccination requirements because they were not significant to our audit objective. The information in this report is provided for informational purposes only and therefore does not contain any recommendations.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions

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<sup>34</sup> We did not assess whether any of the staff members in our sample were immunocompromised and thus were recommended to receive an additional dose after having completed a primary vaccination series.

based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix A describes our audit scope and methodology, Appendix B describes our statistical sampling methodology, and Appendix C contains our sample results and estimates.

## RESULTS OF AUDIT

As of the week ended March 27, 2022, we determined for the 1,000 nursing home staff members in our sample that:

- 884 had received the required vaccine doses (506 of these staff members had also received a booster dose);
- 78 had been granted a religious exemption; and
- 18 were partially vaccinated, had been granted a medical exemption, or had applied for an exemption that was being reviewed by a nursing home.<sup>35</sup>

For the remaining 20 staff members in our sample, the nursing homes did not provide us with documentation related to the staff members' vaccination status, or the documentation provided did not clearly identify the staff members' vaccination status. As a result, we were not able to determine the vaccination status of these staff members.

On the basis of our sample results, we estimated that:<sup>36</sup>

- 91 percent of staff nationwide had received the required vaccine doses and 56 percent of staff nationwide had received a booster dose, and
- 6 percent of staff nationwide had been granted a religious exemption.<sup>37</sup>

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<sup>35</sup> Of the 18 staff members, 12 were partially vaccinated, 3 had been granted a medical exemption, and 3 had applied for an exemption that was being reviewed by the nursing home.

<sup>36</sup> Because of the small number of staff members (i.e., 38) in our sample results who were partially vaccinated, who were granted a medical exemption, who applied for an exemption that was being reviewed, or for whom the vaccination status was undeterminable, we did not estimate the percentages of staff nationwide in these groups.

<sup>37</sup> The estimated percentages in this report differ from the raw proportion of observed staff members to sample size because of the estimation methodology used for a stratified multistage design. In addition, all estimated percentages have been rounded to the nearest whole number. See Appendix C for details on the estimated percentages.

In addition, the estimated percentages of staff who received the required vaccine doses, staff who received a booster dose, and staff who were granted a religious exemption varied depending on the locations (i.e., HHS regions) of the nursing homes in which they worked.

## **FEDERAL REQUIREMENTS**

Federal regulations require nursing homes to ensure that all staff receive the required vaccine doses.<sup>38</sup> Excluded from this requirement are staff who are granted exemptions from receiving the vaccine or staff for whom COVID-19 vaccination must be delayed, as recommended by CDC, because of clinical precautions and considerations.<sup>39</sup> (The date by which nursing homes were required to implement the vaccination requirements was based on a series of Federal court rulings (described in the “Background” section of this report) and varied by State.<sup>40</sup>)

The regulations also require nursing homes to track and document the COVID-19 vaccination status of all staff, including the status of any staff member who received a booster dose and information provided by those staff who requested or were granted any exemption from receiving a vaccine.<sup>41</sup> Additionally, nursing homes are required to maintain documentation of the vaccination status of all staff.<sup>42</sup>

## **AN ESTIMATED 91 PERCENT OF NURSING HOME STAFF NATIONWIDE RECEIVED THE REQUIRED VACCINE DOSES, AND AN ESTIMATED 56 PERCENT OF STAFF NATIONWIDE RECEIVED A BOOSTER DOSE**

As of the week ended March 27, 2022, 884 nursing home staff members in our sample had received the required vaccine doses, 506 of whom had also received a booster dose. To determine the vaccination status of these staff members, we reviewed vaccination documentation (e.g., COVID-19 vaccination cards and vaccination records from health care providers and State immunization information systems) that the nursing homes provided for these staff. On the basis of our sample results, we estimated that 91 percent of nursing home staff nationwide had received the required vaccine doses and 56 percent of nursing home staff nationwide had received a booster dose. (See Figure 2.)

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<sup>38</sup> 42 CFR § 483.80(i).

<sup>39</sup> 42 CFR § 483.80(i)(3)(ii).

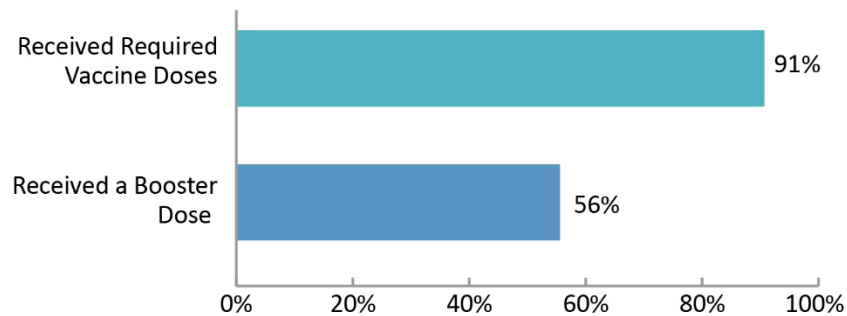
<sup>40</sup> CMS explained its decision to delay the effective date of the requirements in *External FAQ: CMS Omnibus COVID-19 Health Care Staff Vaccination Interim Final Rule*. Available at <https://www.cms.gov/files/document/cms-omnibus-covid-19-health-care-staff-vaccination-requirements-2021.pdf>. Accessed on Apr. 13, 2022.

<sup>41</sup> 42 CFR § 483.80(i)(3).

<sup>42</sup> 42 CFR § 483.80(d)(3)(vii)(C).



**Figure 2: Estimated Percentages of Staff Nationwide Who Received the Required Vaccine Doses and Who Received a Booster Dose**



**AN ESTIMATED 6 PERCENT OF NURSING HOME STAFF NATIONWIDE WERE GRANTED A RELIGIOUS EXEMPTION**

As of the week ended March 27, 2022, 78 nursing home staff members in our sample had been granted a religious exemption. To determine the vaccination status of these 78 staff members, we reviewed each staff member’s request for the exemption and the nursing home’s approval of the request. On the basis of our sample results, we estimated that 6 percent of nursing home staff nationwide had been granted a religious exemption.

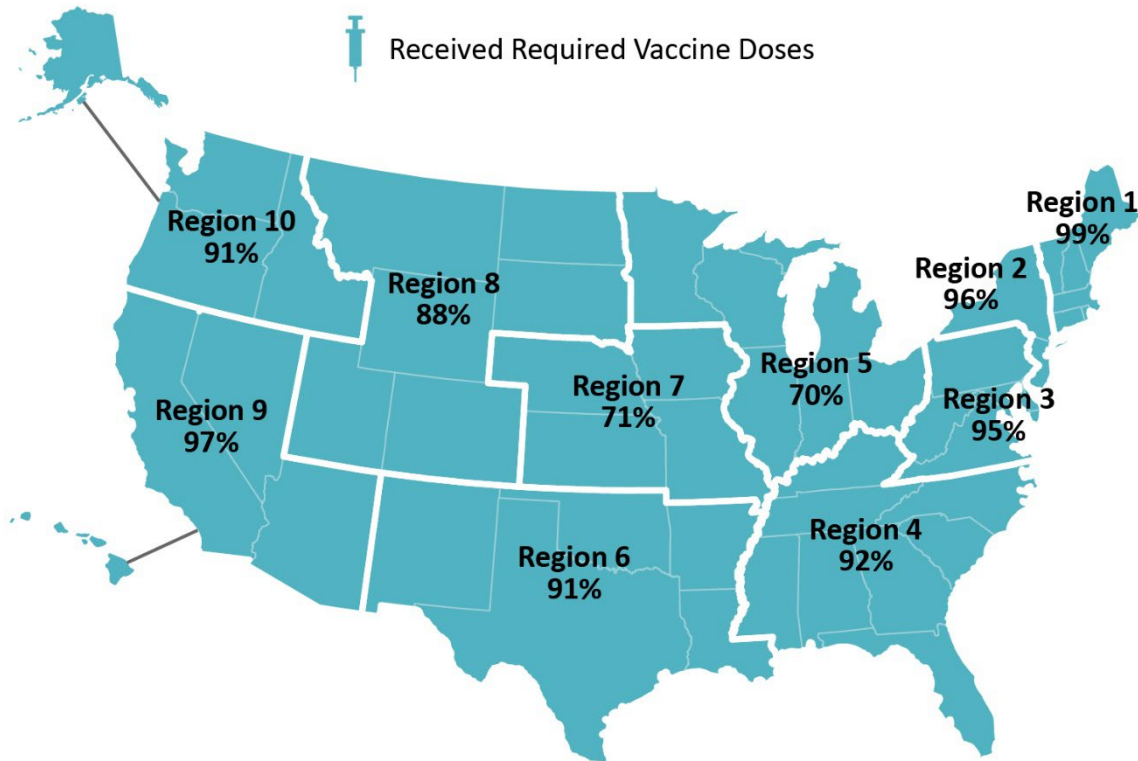
**THE ESTIMATED PERCENTAGES OF NURSING HOME STAFF WHO RECEIVED THE REQUIRED VACCINE DOSES, WHO RECEIVED A BOOSTER DOSE, AND WHO WERE GRANTED A RELIGIOUS EXEMPTION VARIED AMONG HHS REGIONS**

The estimated percentages of nursing home staff who received the required vaccine doses, staff who received a booster dose, and staff who were granted a religious exemption varied depending on the HHS region in which the nursing homes were located.

## Variations in the Percentage of Nursing Home Staff Who Received the Required Vaccine Doses

The percentage of nursing home staff who received the required vaccine doses varied among the 10 HHS regions, ranging from 70 percent to 99 percent. Specifically, the percentage of nursing home staff who received the required vaccine doses was lowest in Region 5 (70 percent) and Region 7 (71 percent) and highest in Region 1 (99 percent). In 4 of the 10 regions, the percentage was 95 percent or higher. (See Figure 3.)

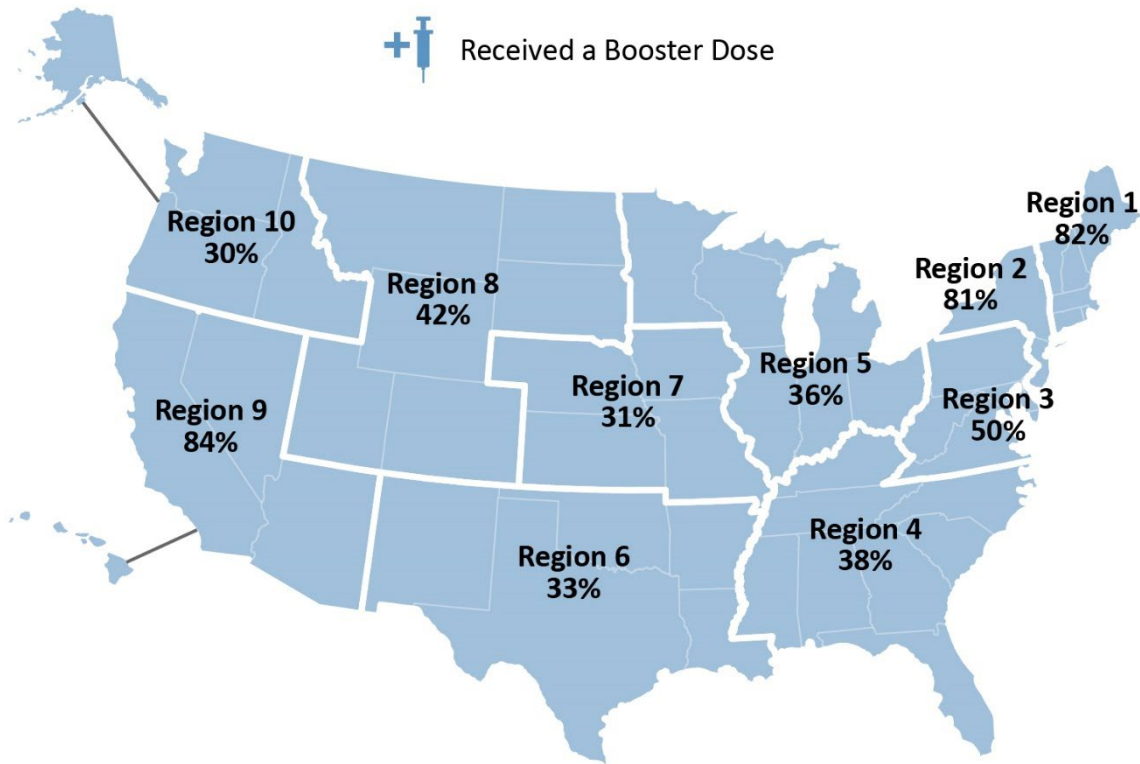
**Figure 3: Estimated Percentages of Nursing Home Staff Who Received the Required Vaccine Doses**



### Variations in the Percentage of Nursing Home Staff Who Received a Booster Dose

The percentage of nursing home staff who received a booster dose varied among the 10 HHS regions, ranging from 30 percent to 84 percent. Specifically, the percentage of nursing home staff who received a booster dose was lowest in Region 10 (30 percent) and highest in Region 9 (84 percent). In 3 of the 10 regions, the percentage was 81 percent or higher. In 5 of the 10 regions, the percentage was 38 percent or lower. (See Figure 4.)

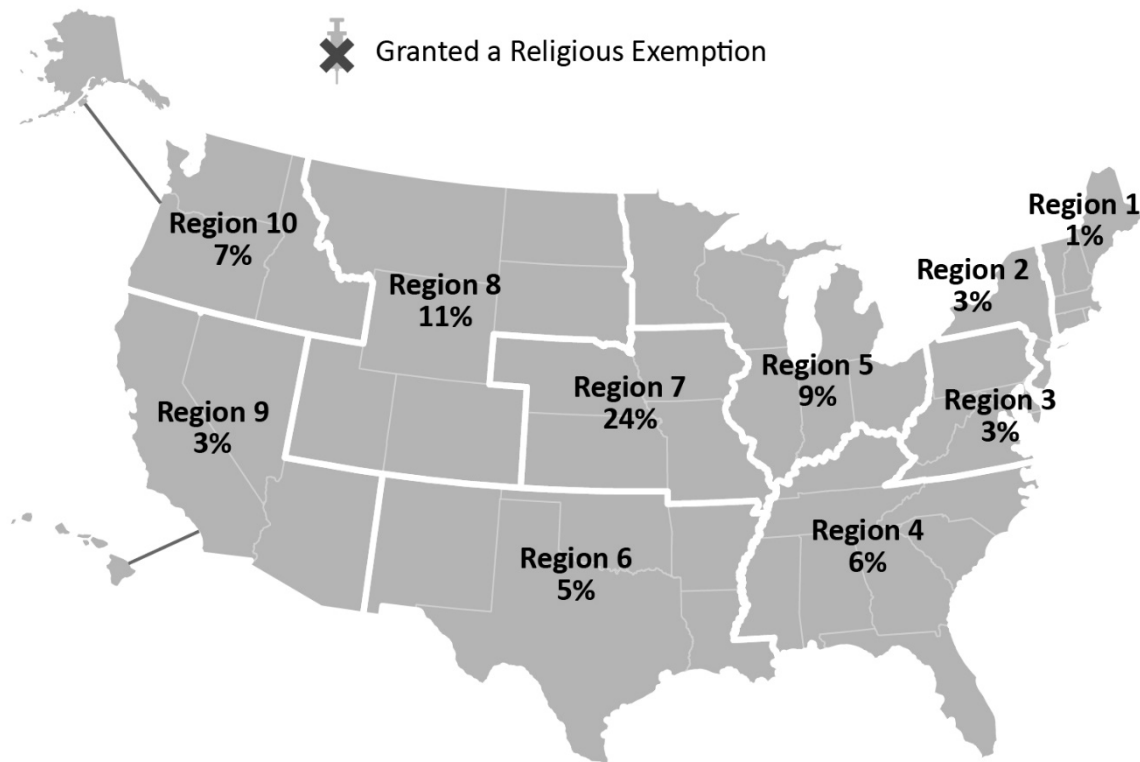
**Figure 4: Estimated Percentages of Nursing Home Staff Who Received a Booster Dose**



## Variations in the Percentage of Nursing Home Staff Who Were Granted a Religious Exemption

The percentage of nursing home staff who were granted a religious exemption varied among the 10 HHS regions, ranging from 1 percent to 24 percent. Specifically, the percentage of nursing home staff who were granted a religious exemption was lowest in Region 1 (1 percent) and highest in Region 7 (24 percent). In 8 of the 10 regions, the percentage was below 10 percent. (See Figure 5.)

**Figure 5: Estimated Percentages of Nursing Home Staff Who Were Granted a Religious Exemption**



### CONCLUSION

The highly contagious nature of COVID-19, the close quarters in which nursing home residents live, and the direct, frequent contact between residents and nursing home staff have put residents and staff at an elevated risk of infection. As part of its efforts to protect the health and safety of residents and staff and to reduce the spread of COVID-19 in nursing homes, CMS established COVID-19 vaccination requirements for nursing homes and their staff. Nursing homes are required to: (1) ensure that all staff received the required vaccine doses except for those who were granted an exemption from receiving the vaccine; and (2) track and document the vaccination status of their staff, including those who were granted an exemption.

As of the week ended March 27, 2022, we estimated that 91 percent of nursing home staff nationwide had received the required vaccine doses. However, there was some variation in the estimated percentage of staff who received the required vaccine doses among the 10 HHS regions, ranging from 70 percent to 99 percent. Additionally, although nursing home staff were not required to receive a booster dose, we estimated that 56 percent of staff nationwide had received a booster dose. The estimated percentage of nursing home staff who received a booster dose among the 10 HHS regions ranged from 30 percent to 84 percent. Finally, although we estimated that 6 percent of nursing home staff nationwide had been granted a religious exemption, we estimated that 24 percent of staff in one region had been granted a religious exemption.

This report includes no recommendations. The results of this audit present a snapshot of the COVID-19 vaccination status of nursing home staff nationwide at a specific point in time.

CMS provided technical comments on our draft report, which we addressed as appropriate. CMS did not submit comments other than those technical comments.

## APPENDIX A: AUDIT SCOPE AND METHODOLOGY

### SCOPE

As of March 1, 2022, there were 15,224 Medicare- and Medicaid-certified nursing homes nationwide. Our audit covered the COVID-19 vaccination status of nursing home staff at these nursing homes as of the week ended March 27, 2022.

We used a stratified multistage design to select a sample of nursing home staff nationwide (from the 50 States and the District of Columbia). We stratified the sampling frame of the 15,224 nursing homes into 10 strata based on the nursing homes' locations.<sup>43</sup> From each stratum, we randomly selected 10 nursing homes, for a total of 100 sampled nursing homes.

From each of the 100 sampled nursing homes, we obtained a list of staff members who were subject to the vaccination requirements as of the week ended March 27, 2022. From each list of staff members, we randomly selected 10 staff members, for a total of 1,000 sampled staff members.

For each of the 1,000 staff members in our sample, we requested from a nursing home documentation of the staff member's COVID-19 vaccination status as of the week ended March 27, 2022.<sup>44</sup> From March 28 through April 22, 2022, we reviewed the documentation to determine whether the staff member: (1) had received the required vaccine doses, (2) had received a booster dose, or (3) had requested or had been granted an exemption from receiving the vaccine. In instances when a nursing home did not provide us with documentation or the documentation did not clearly identify a staff member's vaccination status, we considered the vaccination status of that staff member as undeterminable.

We conducted this nationwide audit to provide an independent analysis of nursing home staff members' COVID-19 vaccination status and to support CMS's efforts to protect the health and safety of nursing home residents and staff. This audit provides CMS and other decisionmakers (e.g., Congress) with a snapshot of the vaccination status of nursing home staff nationwide at a specific point in time (i.e., as of the week ended March 27, 2022) based on our review of nursing homes' documentation and discussions we had with officials (e.g., administrators, infection preventionists, and directors of nursing) from the nursing homes in our sample.

This audit is not an assessment of nursing homes' determinations of the vaccination status of their staff members (including exemptions that the nursing homes granted staff members), nursing homes' reporting of the vaccination status of their staff members to the NHSN, or CMS's oversight of nursing homes' compliance with the vaccination requirements. As a result,

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<sup>43</sup> The 10 strata represented the 10 HHS regions across the country. The HHS regions are shown at <https://www.hhs.gov/about/agencies/iea/regional-offices/index.html>. Accessed on Mar. 1, 2022.

<sup>44</sup> The documentation included COVID-19 vaccination cards, vaccination records from health care providers or State immunization information systems, and staff members' requests for exemptions from receiving a vaccine.

we did not assess CMS's or the nursing homes' internal controls related to the vaccination requirements because they were not significant to our audit objective. The information in this report is provided for informational purposes only and therefore does not contain any recommendations.

We conducted our audit from March to May 2022.

## **METHODOLOGY**

To accomplish our objective, we:

- reviewed applicable Federal regulations and guidance;
- obtained from CMS clarification on certain vaccination requirements for nursing homes and their staff;
- obtained a list of all Medicare- and Medicaid-certified nursing homes nationwide and stratified the nursing homes into 10 strata based on HHS regional boundaries;
- from each of the 10 strata, randomly selected 10 nursing homes, for a total of 100 sampled nursing homes;
- contacted each of the 100 sampled nursing homes to discuss our audit and obtained a list of the nursing home's staff members who were subject to the vaccination requirements as of the week ended March 27, 2022;
- performed data validation steps to verify that each sampled nursing home's staff list was accurate and complete, including steps confirming that each staff member was identified only once in a list, various types of staff (i.e., employees, volunteers, and contractors) were included in the lists, and the lists included staff who were working in the nursing home during the week ended March 27, 2022;
- randomly selected 10 staff members from each of the 100 sampled nursing homes, for a total of 1,000 sampled staff members;
- obtained documentation from the nursing homes in our sample to identify the COVID-19 vaccination status of each sampled staff member;<sup>45</sup> and
  - for each sampled staff member who had received at least one dose of a COVID-19 vaccine, reviewed vaccination documentation (e.g., COVID-19

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<sup>45</sup> For 20 staff members in our sample, nursing homes did not provide us with documentation related to the staff members' vaccination status, or the documentation provided did not clearly identify the staff members' vaccination status.

vaccination cards and vaccination records from health care providers or State immunization information systems) to determine whether the documentation contained the name of the staff member who received the vaccine, the number of the vaccine dose (i.e., first, second, or third dose), the name of the vaccine, and the date on which each vaccine dose was received; and

- for each sampled staff member who had requested an exemption from receiving a vaccine, reviewed the staff member's request for the exemption and evidence of the nursing home's review of the request to determine the type of exemption requested and whether the nursing home had granted the exemption;
- estimated the percentages of nursing home staff who received the required vaccine doses, who received a booster dose, and who were granted a religious exemption nationwide and for each of the 10 HHS regions;<sup>46</sup> and
- shared the results of our audit with CMS officials.

We provided CMS with our draft report on May 25, 2022, for review. CMS did not have any written comments but did provide technical comments, which we addressed as appropriate.

Appendix B describes our statistical sampling methodology, and Appendix C contains our sample results and estimates.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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<sup>46</sup> Because of the small number of staff members (i.e., 38) in our sample results who were partially vaccinated, who were granted a medical exemption, who applied for an exemption that was being reviewed, or for whom the vaccination status was undeterminable, we did not estimate the percentages of staff nationwide in these groups.



## APPENDIX B: STATISTICAL SAMPLING METHODOLOGY

### SAMPLING FRAME

Because a national list of nursing home staff does not exist, we used a multistage sample design with primary units of nursing homes and secondary units of nursing home staff members. We extracted from CMS’s Provider Data Catalog a list of all Medicare- and Medicaid-certified nursing homes on March 1, 2022. The resulting sampling frame consisted of 15,224 nursing homes. After randomly selecting nursing homes, we obtained from each sampled nursing home a list of its staff members as of the week ended March 27, 2022. For the randomly selected nursing homes, the total number of staff members was 12,939.

### SAMPLE UNIT

The primary sample unit was a nursing home with a unique CMS Certification Number. The secondary sample unit was a nursing home staff member.

### SAMPLE DESIGN AND SAMPLE SIZE

We used a stratified multistage sample design. First, we stratified the sampling frame of nursing homes (primary units) into 10 strata based on HHS’s 10 regional boundaries. Then we randomly selected 10 nursing homes from each stratum, for a total of 100 nursing homes. Finally, we randomly selected 10 nursing home staff members (secondary units) from each sampled nursing home, for a total of 1,000 nursing home staff members (10 sampled staff members for each of the 10 sampled nursing homes in each of the 10 strata), as detailed in Table 1.

**Table 1: Sample Design and Sample Sizes**

A	B	C	D	E	F
Stratum/ HHS Region	Frame Size of Primary Units (Nursing Homes)	Sample Size of Primary Units (Nursing Homes)	Frame Size of Secondary Units (Nursing Home Staff)	Sample Size of Secondary Units per Primary Unit	Total Sample Size (C × E)
1	850	10	1,683	10	100
2	972	10	2,024	10	100
3	1,380	10	1,698	10	100
4	2,698	10	1,232	10	100
5	3,327	10	1,156	10	100
6	2,062	10	994	10	100
7	1,462	10	864	10	100

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>
<b>Stratum/ HHS Region</b>	<b>Frame Size of Primary Units (Nursing Homes)</b>	<b>Sample Size of Primary Units (Nursing Homes)</b>	<b>Frame Size of Secondary Units (Nursing Home Staff)</b>	<b>Sample Size of Secondary Units per Primary Unit</b>	<b>Total Sample Size (C × E)</b>
8	612	10	720	10	100
9	1,431	10	1,417	10	100
10	430	10	1,151	10	100
<b>Total</b>	<b>15,224</b>	<b>100</b>	<b>12,939</b>		<b>1,000</b>

**SOURCE OF RANDOM NUMBERS**

We generated the random numbers with the OIG, Office of Audit Services (OAS), statistical software.

**METHOD OF SELECTING SAMPLE UNITS**

We sorted the nursing homes in each stratum by CMS Certification Number and sorted the nursing home staff members in each nursing home by last name and first name before consecutively numbering the sample units. We generated the random numbers for our sample according to our sample design and then selected the corresponding frame items for review.

**ESTIMATION METHODOLOGY**

We used the OIG-OAS statistical software to calculate the point estimates and the corresponding lower and upper limits of the two-sided, 90-percent confidence intervals for each of the measures listed in Tables 3, 4, 5, and 6 of Appendix C.

**APPENDIX C: SAMPLE RESULTS AND ESTIMATES**

**Table 2: Sample Results**

COVID-19 Vaccination Status of Staff Member	Number of Nursing Home Staff Members per Stratum										Total Number of Staff Members
	1	2	3	4	5	6	7	8	9	10	
Received the required vaccine doses	99	96	94	88	77	89	69	87	96	89	884
Received a booster dose	86	80	50	35	40	30	29	43	84	29	506
Granted a religious exemption	1	3	4	6	7	6	25	12	4	10	78
Other*	0	1	2	6	16	5	6	1	0	1	38

\* “Other” represents staff members who were partially vaccinated, who were granted a medical exemption, who applied for an exemption that was being reviewed, or for whom the vaccination status was undeterminable. We did not estimate the percentages of staff nationwide in these groups.

**STATISTICAL ESTIMATES AND 90-PERCENT CONFIDENCE INTERVALS FOR NURSING HOME STAFF MEMBERS (IN OUR SAMPLING FRAME)**

**Table 3: Nationwide COVID-19 Vaccination Status**

COVID-19 Vaccination Status of Staff Member	Point Estimate (Percent)	Lower Limit (Percent)	Upper Limit (Percent)
Received the required vaccine doses	90.72	88.33	93.10
Received a booster dose	55.59	52.15	59.03
Granted a religious exemption	6.01	4.39	7.62

**Table 4: Received the Required Vaccine Doses (by Stratum)**

Stratum	Point Estimate (Percent)	Lower Limit (Percent)	Upper Limit (Percent)
1	98.91	97.11	100.00
2	95.91	91.89	99.92
3	94.76	90.22	99.29
4	91.96	86.27	97.66
5	70.48	50.34	90.63
6	91.08	85.40	96.76
7	70.59	58.90	82.28
8	88.40	81.42	95.39
9	96.77	93.51	100.00
10	91.43	85.47	97.40

**Table 5: Received a Booster Dose (by Stratum)**

Stratum	Point Estimate (Percent)	Lower Limit (Percent)	Upper Limit (Percent)
1	82.28	69.46	95.09
2	80.59	72.20	88.98
3	49.85	41.74	57.97
4	38.44	28.25	48.63
5	36.03	23.87	48.19
6	33.09	17.60	48.57
7	31.40	21.40	41.40
8	42.22	33.70	50.74
9	84.35	75.35	93.35
10	29.63	18.32	40.93

**Table 6: Granted a Religious Exemption (by Stratum)**

Stratum	Point Estimate (Percent)	Lower Limit (Percent)	Upper Limit (Percent)
1	1.09	0	2.89
2	3.11	0	6.94
3	3.35	0	7.52
4	6.16	0.98	11.34
5	8.93	0.91	16.95
6	4.89	0	9.88
7	23.88	14.17	33.58
8	10.58	3.41	17.76
9	3.23	0	6.49
10	7.23	1.26	13.20