OFFICE OF THE STATE INSPECTOR GENERAL

Department of Behavioral Health and Developmental Services: Central Virginia Training Center Transition Review

November 2018

Michael C. Westfall, CPA
State Inspector General

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COMMONWEALTH OF VIRGINIA
Office of the State Inspector General

Michael C. Westfall
State Inspector General

Post Office Box 1151
Richmond, Virginia 23218

Telephone (804) 625-3255
Fax (804) 786-2341
www.osig.virginia.gov

November 7, 2018

Governor Ralph S. Northam
P.O. Box 1475
Richmond, VA 23219

The Honorable Stephen D. Newman
The Honorable Mark J. Peake
The Honorable T. Scott Garrett
The Honorable Benjamin L. Cline

Dear Sirs:

The Office of the State Inspector General (OSIG) completed a review of factors surrounding the discharge of seven residents of the Central Virginia Training Center (CVTC) Skilled Nursing Facility (SNF), who were admitted to the Hiram Davis Medical Center SNF. A summary final report is attached.

OSIG would like to thank the Department of Behavioral Health and Developmental Services (DBHDS), Central Virginia Training Center (CVTC) and Hiram Davis Medical Center (HDMC) staffs for their cooperation and assistance during this inquiry.

Sincerely,

Michael C. Westfall, CPA
State Inspector General

CC: Clark Mercer, Chief of Staff to Governor Northam
Suzette P. Denslow, Deputy Chief of Staff to Governor Northam
Daniel Carey, M.D., Secretary of Health and Human Resources
Virginia Senate Education and Health Committee
Virginia House of Delegates Health, Welfare and Institutions Committee
Virginia General Assembly
S. Hughes Melton, M.D., Commissioner, Department of Behavioral Health and Developmental Services

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BACKGROUND

On April 3, 2017, the Office of the State Inspector General (OSIG) received a request from Senator Stephen D. Newman, Senator Mark J. Peake and Delegate T. Scott Garrett, for OSIG to perform a review of key factors surrounding the discharge of seven residents of the Central Virginia Training Center (CVTC) Skilled Nursing Facility (SNF), who were admitted to the Hiram Davis Medical Center SNF. On May 4, 2017, a similar request was received by Delegate Benjamin L. Cline.

OSIG is authorized under Code of Virginia § 2.2-309 to investigate the management and operations of state agencies, non-state agencies and independent contractors of state agencies to determine whether acts of fraud, waste, abuse or corruption have been committed or are being committed by state officers or employees or independent contractors of a state agency or any officers or employees of a non-state agency, including any allegations of criminal acts affecting the operations of state agencies or non-state agencies. OSIG also has statutory authority to conduct performance reviews of state agencies to ascertain the efficiency, effectiveness and economy of programs. In addition, OSIG has the following additional powers and duties as set out in § 2.2-309.1. Additional powers and duties: behavioral health and developmental services:

> B. 1. "Provide inspections of and make policy and operational recommendations for state facilities and for providers, including licensed mental health treatment units in state correctional facilities, in order to prevent problems, abuses, and deficiencies in and improve the effectiveness of their programs and services. The State Inspector General shall provide oversight and conduct announced and unannounced inspections of state facilities and of providers, including licensed mental health treatment units in state correctional facilities, on an ongoing basis in response to specific complaints of abuse, neglect, or inadequate care and as a result of monitoring serious incident reports and reports of abuse, neglect, or inadequate care or other information received…"
>
> B. 2. "Inspect, monitor, and review the quality of services provided in state facilities and by providers as defined in § 37.2-403…"

Training Center Closures

In August 2008, the U.S. Department of Justice (DOJ) began an investigation of CVTC pursuant to the Civil Rights of Institutionalized Persons Act (CRIPA). In April 2010, DOJ announced it was expanding its investigation to focus on Virginia's compliance with the Americans with Disabilities Act (ADA) and the U.S. Supreme Court's decision in Olmstead v. L.C. On January 26, 2012, Virginia and DOJ reached a Settlement Agreement (SA). As part of the SA, Virginia (Commonwealth) announced its plan to close all but one of the training centers operated by the Virginia Department of Behavioral Health and Developmental Services

(DBHDS) by the end of state fiscal year 2021. CVTC, the largest training center in Virginia, was included as one of the training centers identified for closure.

DBHDS has successfully closed three of five training centers: Southside Virginia Training Center, Northern Virginia Training Center and Southwestern Virginia Training Center. CVTC is targeted to close by June 30, 2020. Its operations formerly included a 43-bed nursing home (Building 31), certified by the Centers for Medicare and Medicaid Services (CMS) as a skilled nursing facility (SNF), as well as a nursing facility (NF).

On March 15, 2016, a letter was sent to residents' authorized representative or guardians of SNF/NF residents reaffirming the January 2012, announcement by then-Governor McDonnell that CVTC will close by June 30, 2020. The letter outlined the steps included in the 12-week process of actively seeking placement in the most integrated setting capable of meeting all care and support needs of CVTC residents.

On August 26, 2016, all CVTC SNF/NF authorized representatives were sent a letter from then-DBHDS Interim Commissioner Jack Barber, M.D., announcing plans to, "… decertify the skilled nursing beds in Building 31 by December 30, 2016, and to immediately reclassify the beds by converting them to intermediate care facility (ICF/IID) beds, the same level of certification as the rest of the training center." He also announced Building 31 would close as an SNF/NF effective December 31, 2016.

Nursing Home Compare Five-Star Quality Rating System

The Centers for Medicare and Medicaid Services (CMS), established in 1977, is a division of the United States Department of Health and Human Services (HHS) and the administrator of Medicare and Medicaid programs. Medicare is a federal health insurance program designed for adults aged 65 or older and certain individuals with disabilities. Medicaid is a joint federal and state insurance program for low-income adults, children, pregnant women, elderly adults and people with disabilities.

In December 2008, CMS enhanced its Nursing Home Compare public reporting site to include a set of quality star ratings for each nursing home that participates in Medicare or Medicaid. The Nursing Home Compare (NHC) Five-Star Quality Rating System provides residents and families with an easy-to-understand summary of three dimensions of nursing home quality: health inspection results, staffing data and quality measure data. The goal of the rating system is to assist with making meaningful distinctions among nursing homes. CMS also intends for the system to help nursing homes identify areas for improvement. (Please note CMS intends nursing home ratings to be used with other sources of information and cannot substitute for individual nursing home visits.)

The rating system features an Overall Quality Rating of one-to-five stars based on the performance measures referenced above, each of which has its own five-star rating:

- Health Inspections Rating: Measures based on state health inspection outcomes. Nursing homes participating in Medicare or Medicaid programs have annual unannounced, on-site health inspections. CMS bases the facility health inspection ratings domain on the number, scope and severity of deficiencies identified during the three most recent inspections, as well as on substantiated findings resulting from complaint investigations performed in the most recent 36 months.
- Staffing Rating: Measures based on nursing home staffing levels. Staffing measures are case-mix adjusted for different levels of resident-care needs across nursing homes.
- Quality Measures Rating: Measures based on resident-level quality metrics.

On February 20, 2015, CMS expanded and strengthened NHC Five-Star Quality Rating System on the CMS NHC website. Recognizing that nursing home care has improved, CMS decided to raise the bar for achieving higher ratings. The changes, which CMS made "effective immediately," dropped many nursing homes' ratings overnight without any change in the facility itself.

In April 2016, CMS began posting data for six new quality measures (QMs) on NHC. In July 2016, five of those became effective in the calculation of the QM ratings. According to a position statement from the American Healthcare Association (AHCA) made in 2015:

"The latest star ratings cannot be compared to ratings prior to July 2016 because the new measures change how the rankings are done…Current ratings not only include five new measures but also multiple changes to how the points are calculated for all 16 measures used in Five-Star."

SCOPE

The scope of this review was limited to questions brought forth by members of the General Assembly. The questions presented were related to stability of residents at time of transfer, family or guardian agreement, medical care and hand-offs between CVTC and HDMC SNFs, the CMS Five-Star Quality Rating System, facility mortality rates, and risks to other residents discharged from CVTC and admitted to HDMC.

OBJECTIVES

The objective of this review was to answer the questions submitted as directly and objectively as possible given available facts, records and the expertise of the OSIG subject matter expert (SME) engaged to assist with this inquiry. The following questions were addressed:

1. What impact did the decision to quickly shut down CVTC's skilled care have on the health of an individual resident?
2. Were the individuals stable at CVTC when they were moved?
3. If they were not stable, why were they moved before they were stabilized?
4. Were their parents or guardians in agreement with the plan to move?
5. Did the medical care change when these individuals were transferred to HDMC? And if so, how and why?
6. Were the medical teams at HDMC truly prepared to care for these individuals?
7. What, if any, impact did the fact that HDMC is a two-star facility versus a five-star facility at CVTC have on the death of these Virginians?
8. If the Commonwealth had not moved these individuals, would it have had any impact on the mortality rate that has occurred at HDMC?
9. What, if any, risk is posed to other patients that are still left at HDMC who were moved from CVTC?
10. Why did we have a fifty percent mortality rate of those moved from CVTC to Hiram Davis within just a few months?

METHODOLOGY

Engaging Outside Expertise

OSIG engaged the assistance of a physician consultant as a subject matter expert (SME), to conduct this review. The SME is licensed in the state of Virginia, has practiced for 16 years and is board certified in internal medicine, critical care medicine, pulmonary disease and sleep medicine. The SME has worked in a wide variety of hospital settings to include tertiary/academic centers, community hospitals, military treatment facilities, Veterans Administration (VA) hospitals and long-term/ acute-care hospitals. The SME has practiced in California, Texas, Ohio, Arizona and Virginia, as well as overseas in support of U.S. military

operations. Currently, the SME is an associate professor of internal medicine in the Division of Pulmonary and Critical Care Medicine at Eastern Virginia Medical School (EVMS) in Norfolk, Virginia, and the pulmonary section head and director of the Pulmonary and Critical Care Fellowship Program.

In addition to expertise in pulmonology and critical care, the SME has cared for a large number of patients with profound mental and physical disabilities in inpatient and outpatient settings. In addition to numerous publications, the SME is regularly invited to lecture on a wide variety of topics at local and international meetings and teaches courses on airway management at the local, regional and national level.

Reports, Records, Policies and other Documents Reviewed

In order to complete this review, the SME reviewed the following:

1. Medical records of the seven residents discharged from CVTC SNF and admitted to HDMC SNF between March 22, 2016, and January 30, 2017, including records from the six months prior to discharge;
2. Documents related to discharge from CVTC, including but not limited to each resident's Discharge Plan and Discussion Records (DPDR);
3. CVTC and HDMC medical staff and nursing protocols, if existing, relevant to:
    a. Skin care;
    b. Wound care;
    c. Pressure ulcers:
    d. Aspiration pneumonia;
    e. Weights;
    f. Sepsis;
    g. Discharge and transfer; and
    h. Tube feeding;
4. DBHDS Departmental Instruction (DI) 2016(RTS)12, Training Center Responsibilities Related to Person-Centered Discharge Planning (May 1, 2015);
5. CVTC and HDMC CMS nursing home inspection reports (2016-2017);
6. CVTC and HDMC data regarding the average census and deaths;
7. CVTC and HDMC social work documentation;
8. Resident post-move monitoring reports;
9. Available autopsies or death reviews;
10. CVTC and HDMC SNF staffing plans, ratios and work schedules (2016 and 2017);
11. Documentation from relevant acute-care hospitals;
12. CVTC and HDMC clinical contracts inclusive of physicians, nurses (RNs/LPNs, physical therapists (PT), occupational therapists (OT), wound care nurse(s), recreational therapists (RT), dentists, speech language pathologists/therapist, etc.); and
13. Delta Response Team transportation records.

In addition, the SME reviewed the following:

1. Article: Littlehale, Steven. "Where were you when CMS changed the Five-Star rating system?";
2. McKnight's Long-Term News & Assisted Living (March 20, 2015);
3. AHCA Position on Changes to CMS Five-Star Quality Rating System (2015);
4. Further Improvements to the Nursing Home Compare Five-Star Quality Rating System (March 03, 2016);
5. United States v. Virginia No.: 312cv59 Central Virginia Training Center Discharge Process Review (Expert report of Tina Kitchin, M.D., January 10, 2017);
6. Fact Sheet: Nursing Home Compare Five-Star Quality Rating System;
7. Nursing Home Compare 3.0: Revisions to the Nursing Home Compare 5-Star Quality Rating System (February 12, 2015);
8. DBHDS Initial Response to The Center for Developmental Disabilities Evaluation and Research (CDDER) Report of Individuals at HDMC (July 27, 2017);
9. Virginia Department of Health Office of Licensure and Certification Survey Reports (Form CMS-2567) to CVTC:
    a. Standard Unannounced Survey Report (June 6, 2016);
    b. Standard Abbreviated Unannounced (Complaint) Survey Report (November 22, 2016);
10. Virginia Department of Health Office of Licensure and Certification Survey Reports (Form CMS-2567) to HDMC:
    a. Standard Unannounced Survey Report (January 26, 2017);
    b. Standard Abbreviated Unannounced (Complaint) Survey Report (October 6, 2016);
    c. Standard Abbreviated Unannounced (Complaint) Survey Report (April 6, 2017).
11. Report: Lauer, Emily. Results of post-transition review for individuals at Hiram Davis Medical Center, Virginia. Report submitted to the United States Department of Justice (June 2017);
12. Department of Justice (DOJ) Settlement Agreement: United States v. Commonwealth of Virginia (2012);
13. United States Department of Justice investigation findings regarding the Investigation of the Commonwealth of Virginia's Compliance with the Americans with Disabilities Act and of Central Virginia Training Center (February 10, 2011);
14. Letter from then-DBHDS Interim Commissioner Jack Barber, M.D. to CVTC Nursing Facility Authorized Representatives regarding decertification of Building 31 long-term care (LTC) beds (August 26, 2016);
15. DBHDS report: Hiram Davis Medical Center (HDMC) Mental Health (MH) and Developmental Disability (DD) Deaths Compared to Eastern State Hospital (ESH) Nursing

Facility (NF) Deaths and Central Virginia Training Center (CVTC) Nursing Facility (NF) Deaths Date Range: 7/1/11-2/1/17;

16. *Virginia Code* § 37.2-837. Discharge from state hospitals or training centers, conditional release and trial or home visits for individuals;
17. Training Center – Community Services Boards Admission and Discharge Protocols for Individuals with Intellectual Disabilities Effective March 1, 2011; and
18. Fact Sheet: Virginia's Settlement Agreement with the U.S. Department of Justice (DOJ) and Proposed Plan to Implement the Terms of the Agreement.

Training Center Site Work

The SME and several OSIG staff conducted site visits at CVTC and HDMC in April and May 2018, including facility tours, leadership and direct-care staff interviews, document reviews and observations of individuals discharged from CVTC SNF and admitted to HDMC SNF.

CONCLUSIONS

Below is a compendium of the SME's findings.

Question 1: **What impact did the decision to quickly shut down CVTC's skilled care have on the health of an individual resident?**

Prior to discharge and admission to the accepting SNF, a comprehensive list of all medications, treatments, services, equipment and other individualized needs was compiled for each resident and sent to the accepting facility (HDMC). HDMC ensured it could supply all services, treatments, equipment, etc. Providers from CVTC and HDMC discussed residents and their specific needs. For several individuals with complex medical needs, care teams from CVTC traveled to HDMC with residents and stayed on site for one-to-two days in order to improve continuity of care and answer any questions the HDMC team had. Post-move assessments were conducted on a routine basis for the first month after admission to ensure all important medical treatments had been continued. In short, based upon this review, it is the professional opinion of the SME that extensive and impressive efforts were undertaken to ensure residents had safe transport and that all needs were met at HDMC. Regarding adequacy of the transfer process, the SME reported it exceeded current standards of care for nursing facility discharges and admissions between SNFs. Additionally, the SME stated that the resident in question and the other six residents would not have benefited from lengthier or more in-depth planning.

Due to the acuity level of the resident in question, a great deal of effort went into discharge planning and discharge was actually delayed several times due to clinical instability. At the time of discharge from CVTC, this resident appeared to be in a "normal baseline state." An examination was done the day before discharge and the day of discharge and it was determined the resident was, "stable for transport." In fact, a CVTC physician rode in the ambulance with the resident to HDMC. The day after admission to HDMC, acute respiratory symptoms consistent with the resident's history began. At the time, care was still being provided by the combined CVTC and HDMC teams. The resident appeared to recover from this initial event following a course of antibiotics. The SME was unable to find any evidence this acute event was caused by the transfer process or that remaining at CVTC would have prevented this illness. It is the opinion of the SME that this event occurred as a result of this resident's underlying medical conditions. Any further delays in discharge from CVTC and admission to HDMC would not have prevented its occurrence.

Approximately 10 days after admission to HDMC, this same resident developed evidence of acute illness, which required transfer to a nearby hospital. Despite a protracted hospital course, the individual was never able to recover. The resident transitioned to end-of-life care and passed away nearly two months after admission to HDMC. It is the opinion of the SME that this second and more serious illness, as well as the resulting death, came about as a result of underlying medical

conditions and no evidence was found that the outcome would have been improved by a delay in the decertification of CVTC SNF.

Question 2: **Were the individuals stable at CVTC when they were moved?**

All seven residents were examined prior to transfer in order to make sure they were clinically stable and safe for transport. From available documentation, all residents appeared stable at the time of discharge and admission to HDMC. The SME reviewed physician notes, multidisciplinary notes, nursing documentation and vital signs logs for all seven residents in the days and weeks surrounding discharge and admission to HDMC. Prior to discharge from CVTC, none of the residents exhibited significant vital sign abnormalities, changes in physical exam findings or other clinical indicators to suggest there was a deterioration in clinical status or that they would be unstable for transfer.

Question 3: **If they were not stable, why were they moved before they were stabilized?**

All seven residents under review were examined prior to transfer and cleared for transport. Transfer of care between facilities was within the same level of care, and the method of transportation was appropriate with each resident's acuity level. After reviewing available records, no further stabilization was indicated for any resident in question.

Question 4: **Were their parents or guardians in agreement with the plan to move?**

It appears the attitudes of the families impacted by the decertification and closure of CVTC's SNF beds differed considerably. It is clear the families of three residents were staunchly opposed to the move. One family appeared to be pleased with the transfer, as HDMC was closer to family. Their support for the move was evidenced by the fact that the move occurred considerably earlier than others. Families of the other three residents appeared to be generally disappointed at the prospect of having to move their loved ones to a new facility, but eventually accepted this was necessary and felt HDMC was the best choice.

Question 5: **Did the medical care change when these individuals were transferred to Hiram Davis? And if so, how and why?**

No two facilities are exactly alike. The SME has worked in more than 20 hospitals in the course of his medical career and in innumerable outpatient clinics. Each had different physicians, support staff, protocols, regulations, bylaws, etc. Despite these differences, each facility was fully accredited and offered quality medical care. Similarly, no two physicians practice the art of medicine in exactly the same way. Additionally, adjustments in medication and treatment regimens are required to adapt to residents' changing needs and to incorporate new advances in medicine.

For all of these reasons, one would expect some changes in the care of these individuals over time. In the end, the most important question is whether any of the changes that occurred were inappropriate or detrimental. It is the professional opinion of the SME that the three resident deaths occurred as a result of their underlying medical conditions, rather than from any change in care received.

The SME reviewed medical records of all seven residents, interviewed physicians and staff members and read post-move assessments, which were conducted at regular intervals over the month following admission to HDMC to ensure all services and treatments were being administered. These reports document all substantive changes in treatments, any omitted therapies and any medication changes. The reports included the rationale for any changes and, when appropriate, suggestions for ways to ensure residents received treatments in question.

The majority of items identified as changes on post-move assessments reflected differences in facility protocols and documentation practices. Some differences were noted in practices related to frequency of vital sign checks, types of pumps used for delivery of enteral nutrition and methods of oral care. These differences reflected different practice patterns, rather than deficiencies requiring correction. There were a few instances where physician orders were inadvertently omitted. Any oversights were minor in nature, infrequent and quickly corrected.

A number of resident medications were changed in the months after HDMC admission. HDMC physicians reported that they attempted to reduce or eliminate medications felt no longer necessary or which may have been causing untoward side effects. In a similar fashion, some scheduled treatments and procedures such as urinary bladder straight catheterizations were changed to an as-needed basis. The primary goal of these changes was reported to reduce medication side effects, decrease procedural risks and improve quality of life. According to the SME, the changes all seemed to be reasonable based on each resident's condition at the time.

One difference noted between facilities had to do with the number of staff caring for the most acutely ill. CVTC, a much larger facility, had the ability to flex staff members from areas of lower need into other areas of higher need. The five residents requiring the highest level of care enjoyed a 1:1 staff ratio at CVTC. Two nurses (at least one of which was a registered nurse), two nursing assistants and one respiratory therapist were typically reserved for these five residents alone. Furthermore, the attending physician typically rounded on them twice daily. To put this into perspective, most intensive care units (ICUs) in the United States have a 1:2 nurse-to-patient ratio, and physicians are required to round at least once daily. Although it did not have the ability to maintain staffing levels higher than most ICUs, HDMC and CVTC received five stars from CMS for the staffing metric. Despite extremely high staffing levels seen at CVTC, the SME could find no evidence to indicate that any of the three deaths could have been prevented by continuing staffing levels of CVTC.

Question 6: **Were the medical teams at Hiram Davis truly prepared to care for these individuals?**

As stated previously, after a thorough review of each facility including their capabilities, staffing and ancillary services, it is the expert opinion of the SME that HDMC appears to have had the capacity to care for all of the residents in question. Between 2012 and 2016, HDMC–SNF, CVTC–SNF and Eastern State Hospital–LTC units all carried an average census of between 60 and 80 residents. At the time of the discharges and admissions of the residents in question, the average census at CVTC and HDMC was almost identical. Between 2015 and 2016, the average census at HDMC increased from 68 to 70. This, as well as the fact that the seven residents were transferred over the course of a ten-month period, makes it unlikely that the influx of residents from CVTC overwhelmed the capabilities of HDMC. CVTC and HDMC resident populations also appeared to be quite similar. The SNF/NF beds of both facilities cared for large numbers of residents with intellectual/developmental disabilities, behavioral health issues and significant medical comorbidities. Both facilities frequently cared for residents whose focus was primarily on end-of-life care. The capabilities and services available at HDMC appear to be quite similar to those of CVTC and suitable for the needs of the seven residents in this review. The SME confirmed the findings in Dr. Tina Kitchin's report (United States v. Virginia No.: 312cv59 Central Virginia Training Center Discharge Process Review, January 10, 2017) on the quality of the discharge planning process from CVTC to identify needs, supports and services required in a setting outside CVTC.

Question 7: **What, if any, impact did the fact that Hiram Davis is a two-star facility versus a five-star facility at CVTC have on the death of these Virginians?**

The Five-Star Nursing Home Quality Rating System is complex and a large number of variables can affect a facility's rating. Between 2012 and 2015, HDMC maintained an overall rating of four-to-five stars. From late 2015 through 2017, HDMC dropped to a two-to-three star rating as the result of one or two state health inspections and receiving one additional star for staffing. The quality metrics performance was insufficient to raise its rating any higher. Part of this drop may have been due to the changes in the CMS rating system discussed earlier. The 2015 changes in the LTC scoring system made it more difficult for facilities to achieve high ratings. It should also be noted there has been a shift in the quality metrics focus with greater emphasis placed on short-term residents versus long-term residents, such as those served at HDMC.

It was reported by HDMC senior leadership that issues impacting their rating were related to several isolated findings including an ulceration to a resident's toe, the origin of which was never identified but was thought to be related to poor circulation and contact with a foot board. Despite the isolated nature of the findings, impact to their rating score was evident until 2018. It is the

opinion of the SME that HDMC's two-star rating had no impact on the quality of resident care. As of the July 2018 NHC Five-Star Ratings Provider Rating Report, HDMC has earned back a five-star rating.

Question 8: **If the Commonwealth had not moved these individuals, would it have had any impact on the mortality rate that has occurred at Hiram Davis?**

The SME's opinion is that CVTC residents who passed away following admission to HDMC died secondary to their underlying medical issues. All were extremely ill at baseline. The SME also agrees with HDMC and CVTC staff who were directly involved with their care in concluding that all were appropriate for end-of-life care based on their medical conditions. The SME could find no evidence that the moves themselves or any changes in medical care post move contributed to their deaths. In the SME's opinion, regardless of the moves to HDMC, no evidence was found to suggest their lives could have been extended by remaining at CVTC.

Question 9: **What, if any, risk is posed to other patients that are still left at Hiram Davis who were moved from CVTC?**

The SME found no evidence that the remaining residents at HDMC are at increased risk for morbidity or mortality. At the time of the site visit, all remaining residents admitted to HDMC SNF following discharge from CVTC SNF appeared to be doing quite well, and HDMC appeared to be well organized and providing quality medical care.

Question 10: **Why did we have a fifty percent mortality rate of those moved from CVTC to Hiram Davis within just a few months?**

When calculating mortality rates, it is extremely important to look at the size of the population in question and the time period used for measurement. For example, if one were to look at the one-week mortality rate of a two-bed ICU, some weeks would have a staggering 100 percent mortality rate, even though most weeks would have a 0 percent mortality rate. Obviously, with numbers so small, it is impossible to draw any conclusions about statistical significance. In terms of the mortality rate of the residents discharged from CVTC and admitted to HDMC, three of the seven (43 percent) in this review passed away. Several other CVTC SNF residents have been admitted to HDMC SNF, bringing the overall number to 12 at the time of this writing, and the subsequent mortality rate to 25 percent. However, as discussed above, all three deaths were residents who were essentially receiving end-of-life care. In order to determine if there is a significant difference in mortality rates between institutions, a larger sample size would be required. The SME reviewed available mortality data from 2012 to 2017 for CVTC, HDMC and Eastern State Hospital (LTC beds). Between 2012 and 2016, CVTC had 44 deaths, while maintaining an average census of 73. HDMC had 48 deaths, while maintaining an average census of 71. Eastern State (LTC beds) had

30 deaths, while maintaining an average census of 61 patients. Thus, the annual mortality rate per resident was 0.12 for CVTC, 0.13 for HDMC, and 0.1 for Eastern State Hospital. In summary, after adjusting for the number of residents at each facility, the mortality rates of HDMC and CVTC between 2012 and 2016 are nearly identical. This suggests that the mortality rate resulting from the three deaths discussed in this report was more likely due to a limited sample size, rather than a true difference in mortality rates between the institutions.

REVIEW RESULTS

This report presents the results of our review into factors surrounding the discharge of seven Central Virginia Training Center (CVTC) Skilled Nursing Facility (SNF) residents, who were admitted to the Hiram Davis Medical Center SNF. It is the opinion of the SME that all seven residents appeared stable at the time of discharge from CVTC. The SME could find no evidence that post-transfer illnesses and resulting deaths were caused by the transfer process or that remaining at CVTC would have prevented or changed the outcome for these individuals. It is the professional opinion of the SME that the three resident deaths that occurred post transfer were the result of underlying medical conditions rather than from any change in care received at HDMC. We appreciate the SME's expertise and efforts to answer the questions submitted as directly and objectively as possible, given the available facts and records.