



# Legislative Post Audit Performance Audit Report Highlights

## Department on Aging: Evaluating the Effect of Increasing Minimum Nursing Hours on Resident Care and State Costs

### Report Highlights

April 2012 • R-12-004

#### **Audit Concern**

Legislators were interested in knowing whether a relationship exists between increased nursing hours and quality of care outcomes or reduced health costs for residents in nursing facilities. They also wanted to know the potential costs to implement the nursing standards in 2011 Senate Bill 184.

#### **Other Relevant Facts for Question 1**

*Kansas law requires the Department on Aging to license and regulate adult care homes, such as nursing facilities, assisted living facilities, and adult day care facilities. Nursing facilities are the largest category, accounting for 290 of the nearly 750 licensed facilities the Department oversees.*

*Nurse staffing levels are measured in "hours per resident day." This measure is calculated by dividing the total number of hours worked by nursing staff by the facility's bed days (number of residents multiplied by days spent in the facility).*

**AUDIT QUESTION 1:** *Do empirical studies and reports clearly identify a relationship between increased minimum nursing hours and quality of care outcomes or reduced health costs for residents in nursing facilities?*

#### **AUDIT ANSWERS and KEY FINDINGS:**

- Although the research results are mixed, the most thorough research generally shows a positive relationship between staffing levels in nursing facilities and quality of care outcomes, such as reduced pressure sores or urinary tract infections.
  - The most rigorous studies showed that having more nursing staff appears to be associated with improved quality of care.
  - A number of studies that found a positive relationship between staffing levels and some aspects of quality of care also found negative or no relationships in other aspects of quality of care.
  - None of the studies reviewed found only negative associations between nursing staff levels and patient outcomes.
- According to the federal Centers for Medicare and Medicaid Services (CMS), increasing staffing levels up to 4.1 hours per resident day improves health outcomes. However, adding staff beyond this level did not necessarily produce additional improvements.
- We were unable to detect a clear relationship between nursing hours and quality of care outcomes for Kansas nursing facilities. This does not necessarily mean there is no relationship. Rather, the relationship between nursing staff and health outcomes is complex and we may not have had the necessary data to detect an association.
- In addition to staffing levels, researchers also identified other staff-related factors that are important in improving resident quality of care. These include limiting overtime, reducing absenteeism, and allocating staff across shifts and units adequately.

**AUDIT QUESTION 2:** *What would it cost to implement the minimum nursing staff hours standards recommended by Senate Bill 184, and what potential offsetting savings might result?*

**AUDIT ANSWERS and KEY FINDINGS:**

- Although all Kansas nursing facilities meet or exceed the current state staffing requirements, very few facilities currently meet the Senate Bill 184 staffing levels.
- To fully implement Senate Bill 184, nursing facilities would have to hire an estimated 3,600 additional staff for total state costs up to \$43 million annually (\$98 million all funds).

| <b>Maximum Estimated Staffing and Annual Medicaid Cost To Implement Senate Bill 184 Compared to 2010 Costs (in millions)</b> |               |                   |                   |
|--|---------------|-------------------|-------------------|
|  | <b>Year 1</b> | <b>Year 2</b>     | <b>Year 3</b>     |
| Estimated New Staffing FTE   | 800           | 1,900             | <b>3,600</b>      |
| Nursing Facility Costs   | \$11.9        | \$23.9            | <b>\$41.1</b>     |
| Indirect Costs (a)   | \$1.0         | \$1.3             | <b>\$1.6</b>      |
| <b>Total State Portion (Medicaid)</b>  | <b>\$12.9</b> | <b>\$25.2 (b)</b> | <b>\$42.7 (b)</b> |
| Total Cost   | \$29.8        | \$58.1            | <b>\$98.4</b>     |

(a) Indirect costs include the costs to long-term care units and mental health nursing facilities that are a result of Senate Bill 184.  
 (b) The cost for the second and third year already include the cost for the previous year, so the years should not be added together.  
 Source: LPA analysis of the 2010 Department on Aging cost report.

- It could potentially cost nursing facilities about \$245 million to fully implement Senate Bill 184, of which about \$98 million would be reimbursed by Medicaid. The remainder likely would be paid by the facility, Medicare, or private-pay residents.
- Senate Bill 184 would have the unintended consequence of increasing reimbursement rates for certain long-term care facilities that are not covered under the bill. When the bill is fully implemented, these indirect costs could cost the state about \$1.6 million annually.
- Although increasing staffing levels may improve health outcomes, better outcomes are unlikely to result in meaningful savings for the state.
  - Most of the significant costs of poor health outcomes occur when residents are hospitalized to treat these conditions.
  - Because hospital stays for nursing facility residents are generally paid for with federal funds (Medicare), reducing hospitalizations would result in minimal savings to the state.

**RECOMMENDATIONS**

- None

**AGENCY RESPONSE**

- The Department on Aging agreed with our findings.

**HOW DO I GET AN AUDIT APPROVED?**

By law, individual legislators, legislative committees, or the Governor may request an audit, but any audit work conducted by the Division must be approved by the Legislative Post Audit Committee, a 10-member committee that oversees the Division's work. Any legislator who would like to request an audit should contact the Division directly at (785) 296-3792.

**Other Relevant Facts for Question 2**

*Kansas regulations currently require a weekly average of 2.0 hours per resident day, with a minimum of 1.85 hours of nursing care each day.*

*Senate Bill 184 would have increased the minimum nursing staff hours per resident day over a three-year period—from the current 2.0 hours per day to 4.44 hours per day.*

*Additionally, Senate Bill 184 would require specific staffing requirements by nursing type (registered nurse, licensed practical nurses, and nurse aides).*

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