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## **AVOIDABLE HOSPITALIZATIONS IN WASHINGTON STATE**

State expenditures on health care for low-income persons are a large and growing share of the state budget. The DSHS-Medical Assistance Administration (MAA) is budgeted at \$5.6 billion for the 2001–03 biennium, \$1 billion more than the previous biennium. The Washington State Legislature directed the Washington State Institute for Public Policy (Institute) to examine policies to reduce the growth in MAA and other state health care expenditures.<sup>1</sup>

This paper identifies one area where expenditure reductions are possible: avoidable hospitalizations. Many hospital admissions are potentially avoidable through the timely and appropriate use of outpatient health care services (e.g., physician office visits). The existence of “avoidable hospitalizations” suggests the possibility of earlier, and less expensive, outpatient health care services that can avoid later, more expensive hospital admissions, while also improving the health status of patients.

The preliminary analysis described in this paper was conducted to determine if a more detailed analysis of avoidable hospitalizations would be useful. Based on these findings, the Institute will undertake a more comprehensive examination of avoidable hospitalizations for Medicaid recipients using financial and clinical records from hospitals, physicians, and other health care providers.

### **What Is an Avoidable Hospitalization?**

Medical research indicates that certain chronic diseases and other medical conditions can be managed or prevented through outpatient treatment, including physician office visits, laboratory tests, and prescription medications. Previous researchers<sup>2</sup> have identified 12 conditions for which hospitalization should be avoidable: pneumonia, congestive heart failure, asthma, cellulitis, perforated or bleeding ulcer, pyelonephritis (infections of the kidney), diabetes with ketoacidosis or coma, ruptured appendix, malignant hypertension, hypokalemia (potassium deficiency), immunizable conditions, and gangrene.

Hospitalizations associated with these conditions are considered avoidable to the extent that timely and adequate outpatient care could prevent the need for hospital care. For some of these conditions, such as immunizable infectious diseases, appropriate outpatient care should prevent most hospitalizations. However, even adequate outpatient care may not prevent all hospitalizations associated with some of these conditions, such as asthma or congestive heart failure.

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<sup>1</sup> Section 608(8), ESSB 6153.

<sup>2</sup> See J. S. Weissman, C. Gatsonis, and A. M. Epstein, “Rates of Avoidable Hospitalizations by Insurance Status in Massachusetts and Maryland,” *Journal of the American Medical Association* (November 4, 1992); the authors convened a panel of physicians to identify the 12 conditions.

Avoiding these unnecessary hospitalizations has the potential to reduce overall health care expenditures and improve patient health status.<sup>3</sup> A substantial body of research has documented the relationship between these avoidable hospitalizations and race, income, access to care, and insurance status.<sup>4</sup> More recently, researchers have shown that the percentage of avoidable hospitalizations is growing both for privately insured persons and individuals covered by Medicaid and Medicare.<sup>5</sup>

### **Avoidable Hospitalizations in Washington State: Medicaid and Other Payers**

The most recent Washington State data on hospitalizations indicate a total of 549,693 hospital stays during 1999.<sup>6</sup> Using the 12 conditions specified above, it is possible to identify 46,015, or 8.4 percent, of these stays as potentially avoidable. This indicates that avoidable hospitalizations are a large enough issue to warrant further research (see Table 1).

The major focus of the report, however, is on the subset of avoidable hospitalizations that are paid for by Medicaid, which is the largest MAA program. To provide this greater level of detail, Table 1 also displays the number of avoidable hospitalizations by payment source. This indicates that Medicaid paid for 6,191 potentially avoidable hospitalizations in 1999, accounting for 6.3 percent of all Medicaid hospitalizations for the year.

**Table 1**  
**Avoidable Hospitalizations by Payment Source, 1999**

<b>Payment Source</b>	<b>Avoidable Hospitalizations</b>	<b>Total Hospitalizations</b>	<b>Avoidable Hospitalizations as Percent of Total Hospitalizations</b>
<b>Medicaid</b>	<b>6,191</b>	<b>97,904</b>	<b>6.3%</b>
<b>Medicare</b>	24,350	174,445	14.0%
<b>Other Gov't Subsidized</b>	541	8,815	6.1%
<b>Workers' Compensation (Labor and Industries)</b>	161	5,557	2.9%
<b>Private Insurance</b>	12,932	240,152	5.4%
<b>Self-Pay</b>	1,834	22,749	8.1%
<b>Charity Care</b>	6	71	8.5%
<b>Totals</b>	<b>46,015</b>	<b>549,693</b>	<b>8.4%</b>

Source: WSIPP analysis of Washington State Department of Health, 1999 CHARS data.

<sup>3</sup> A. B. Bindman, et al., "Preventable Hospitalizations and Access to Health Care," *Journal of the American Medical Association* (July 26, 1995).

<sup>4</sup> G. Pappas, et al., "Potentially Avoidable Hospitalizations: Inequalities in Rates between U.S. Socioeconomic Groups," *American Journal of Preventive Health* (May 1997); S. D. Culler, M. L. Parchman, and M. Przybylski, "Factors Related to Potentially Preventable Hospitalizations among the Elderly," *Medical Care* (June 1998); Bindman, et al.; Weissman, et al.

<sup>5</sup> L. J. Kozak, M. J. Hall, and M. F. Owings, "Trends in Avoidable Hospitalizations, 1980-1998," *Health Affairs* (March/April 2001).

<sup>6</sup> Washington State Department of Health, Center for Health Statistics/Hospital and Patient Data Systems, *Comprehensive Hospital Abstract Reporting System*, 1999.

The information in Table 1 confirms that avoidable hospitalizations are a substantial issue for Medicaid. While the majority of these hospitalizations are attributable to other payment sources, the potential to avoid over 6,000 Medicaid hospital admissions is of sufficient interest to justify additional investigation.

Table 2 presents information on the specific avoidable conditions for which Medicaid recipients were hospitalized. Nearly three-quarters of these hospital stays were due to three conditions: pneumonia, asthma, and cellulitis. This provides an additional focus for the more detailed research to be examined in the Institute’s final report.

**Table 2**  
**Avoidable Hospitalizations by Condition**  
**Medicaid Recipients Only, 1999**

<b>Condition</b>	<b>Avoidable Hospitalizations</b>	<b>Percent of Avoidable Hospitalizations</b>
<b>Pneumonia</b>	2,033	32.8%
<b>Asthma</b>	1,442	23.3%
<b>Cellulitis</b>	1,055	17.0%
<b>Congestive heart failure</b>	605	9.8%
<b>Pyelonephritis</b>	512	8.3%
<b>Ruptured appendix</b>	277	4.5%
<b>Perforated or bleeding ulcer</b>	145	2.3%
<b>Hypokalemia</b>	54	0.9%
<b>Malignant hypertension</b>	35	0.6%
<b>Immunizable conditions</b>	24	0.4%
<b>Gangrene</b>	9	0.1%
<b>Diabetes with ketoacidosis or coma</b>	0	0.0%
<b>Totals</b>	6,191	100%

*Source: WSIPP analysis of Washington State Department of Health, 1999 CHARS data.*

## Comparison to National Data

Recent research on nationwide rates of avoidable hospitalizations from 1980 to 1998 provides a benchmark against which Washington data can be compared.<sup>7</sup> Table 3 indicates that Washington State has a lower rate of avoidable hospitalizations than the nation as a whole, both in total (8.4 percent of hospital admissions compared with 11.5 percent for the United States) and across various payment sources.<sup>8</sup> This suggests that Washington State’s overall health care system may already be doing an above-average job of providing timely and adequate outpatient care. If so, then efforts to reduce avoidable hospitalizations, whether among Medicaid recipients

<sup>7</sup> Kozak, et al.

<sup>8</sup> Although the Washington data are more recent by one year, these comparisons should still be valid. Given the increasing trend in avoidable hospitalizations nationally between 1980 and 1998, the gap between Washington and the United States may be slightly wider.

or individuals with other sources of health care, may require more concerted efforts here than would be necessary in other states.

**Table 3**  
**Avoidable Hospitalizations as a Percent of all Hospitalizations:**  
**Washington State and the United States**

	<b>Washington (1999 data)</b>	<b>United States (1998 data)</b>
<b>Total</b>	8.4%	11.5%
<b>Medicaid, patients under 65</b>	6.1%	9.8%
<b>Private Insurance, patients under 65</b>	4.7%	7.5%
<b>Medicare, patients over 65</b>	14.4%	15.9%

*Sources: Washington State Department of Health, 1999 CHARS data; United States data from Kozak, Hall, and Owings.*

## Summary

This paper indicates that avoidable hospitalizations are a substantial issue for Washington as a whole and for the state's Medicaid program in particular. Based on this initial analysis, the Institute is conducting further research on avoidable hospitalizations among Medicaid recipients.

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**Washington State  
Institute for Public Policy**

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