

## Intensive Care in Canada

Hospitals are a visible symbol of healthcare in our communities. In 2003–2004, over three million patients were admitted to acute care facilities for a variety of reasons including injuries and illnesses, diagnostic and treatment services, surgery and childbirth. More than one in ten spent part or all of their stay in specialized units that provided more intensive care.

Intensive care is a growing component of hospital services. Previous research shows that utilization of intensive care services increased between 1969 and 1986 in both Canada and the United States (Jacobs and Noseworthy 1990). According to this study, the number of intensive care patient days in Canada grew by an average of 4.8% per year over the study period. In this paper, we explore more recent trends in the use and cost of special care units in acute care facilities.

### Recent Trends in the Use of Special Care Units (SCUs)

According to the Discharge Abstract Database of the Canadian Institute for Health Information (CIHI), special care units provided more specialized intensive care for more than two million people in acute care facilities outside of Manitoba and Quebec<sup>1</sup> between 1997–1998 and 2003–2004. Together, they represented 12.2% of all inpatient admissions, but only 8.8% of inpatient days over this period.

The proportion of all inpatient days that take place in special care units varies across the country and has changed over time (see Figure 1). In British Columbia, for example, less than 6% of inpatient days were spent in special care units in 2003–2004, down from almost 9% in 1997–1998. These changes likely reflect a number of issues including hospital restructuring in the various provinces. Average lengths of stay in special care units

across the country have, however, remained fairly stable over this period. They rose only slightly from an average of 4.4 days in 1997–1998 to 4.7 days in 2003–2004.

As specialized care has become more common, a range of specifically designated types of special care units has emerged to care for patient needs. Medical and surgical intensive care units, for example, remain the most common, accounting for 45% of admissions to special care units in 2003–2004. A further 23% of admissions were to cardiac and coronary SCUs. While neonatal SCUs treated fewer patients, those admitted had an average length of stay twice the overall average for special care unit stays. Interestingly, regardless of type of SCU, more males than females used these services in 2003–2004.

TABLE 1. Use of specialized intensive care units in 2003–2004, Canada\*

Type of SCU	Percent of SCU Admissions	Average Length of Stay in SCU (days)	Mean Age	Percent of Females
Neonatal	15.0	8.1	3 wks	44.1
Pediatric	3.2	3.8	4.9 yrs	44.3
Medical & Surgical	44.8	3.9	62.6 yrs	42.1
Cardiac & Coronary	23.1	2.9	65.2 yrs	34.0
Stepdown	10.8	3.0	63.6 yrs	42.1
Other**	3.2	4.4	55.6 yrs	41.1

\*Excludes Manitoba and Quebec due to differences in data collection methodology.

\*\*Includes Burn, Neurosurgery, Respiriology, Trauma SCUs

Source: Discharge Abstract Database, CIHI

FIGURE 1. Specialized intensive care utilization in Canada



Source: Discharge Abstract Database, CIHI

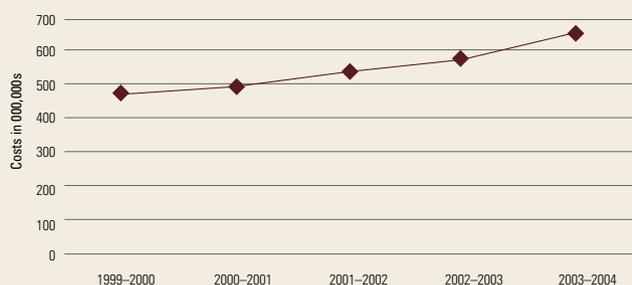
### Mapping the Cost of SCU Care

Hospital spending continues to rise, although not as quickly as health spending as a whole (Canadian Institute for Health Information 2004). In 2004, Canadian hospitals spent a forecast \$39 billion or about 30% of all healthcare dollars.

Within hospitals, specialized intensive care units are one of the most costly types of care offered. For example, they accounted for 15.9% of inpatient direct expenses in Ontario acute care hospitals between 1999–2000 and 2003–2004,

<sup>1</sup> Data from hospitals in Quebec and Manitoba are unavailable due to differences in data collection methodologies.

FIGURE 2. The costs of specialized intensive care (SCU) in Ontario



Source: Canadian MIS Database, CIHI

but only 8.1% of inpatient days. The overall cost of providing intensive care also rose over this period in Ontario, from \$475 million to \$662 million.

Given the important role specialized intensive care services play in patient survival and long-term health and the resources involved, understanding how the use of these services are changing and how they vary across Canada may provide important information about future hospital care and finances in Canada.

**References**

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