



Critical Care

Statistics in the United States

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Society of
Critical Care Medicine
The Intensive Care Professionals



The Society of Critical Care Medicine (SCCM) represents more than 13,000 highly trained professionals in more than 80 countries who provide care in specialized units and work toward the best outcome possible for all critically ill and injured patients. The Society maintains that the Right Care, Right Now™ is best provided by an integrated team of dedicated experts directed by a trained and present physician credentialed in critical care medicine (an intensivist), also referred to as the multiprofessional team model. Delivering care by a multiprofessional team optimizes care for patients, improves conditions for healthcare providers, and boosts the financial performance of the hospital.

This guide lists United States statistics for many of the current issues in critical care. It is intended to be used as a reference when conducting efforts such as advocacy, public relations and general education. Copies of these studies or further information on any of these subjects can be obtained by contacting the SCCM department of marketing at +1 847 827-6869.

Topics

- Acuity
- Cost Savings
- Critical Care Patients
- ICU Facilities
- Length of Stay
- Shortage
- Staffing/Salary

ACUITY

More than 160,000 lives could be saved annually if care were delivered by an intensivist-directed multiprofessional team. Studies have shown mortality rates of 6.04% in intensive care units (ICUs) with intensivist staffing compared with 14.4% when an attending physician provides care. Mortality rates in patients admitted to the ICU average 10% to 20% in most hospitals.

Sources:

- Birkmeyer, J.D., Birkmeyer, C.M., Wennberg, D.E., Young, M.P. *Leapfrog Safety Standards: Potential Benefits of Universal Adoption*. The Leapfrog Group. Washington, DC, 2000.
- Joint Commission Resources. *Improving Care in the ICU*, 1st Edition. Oakbrook Terrace, Illinois: Joint Commission Resources, 2004.
- Pronovost, Peter J., Needham, Dale M., Waters, Hugh, Birkmeyer, Christian M., Calinawan, Jonah R., Birkmeyer, John D., Dorman, Todd. "Intensive Care Unit Physician Staffing: Financial Modeling of the Leapfrog Standard." *Critical Care Medicine* 32, no. 6 (2004):1247-1253.

COST SAVINGS

Up to \$13 million in annual hospital cost savings can be realized when care is delivered by an intensivist-directed multiprofessional team. Even though ICU patients occupy only 10% of the inpatient beds, they account for almost 30% of acute care hospital costs, amounting to \$180 billion annually in the United States alone.

Sources:

- Joint Commission Resources. *Improving Care in the ICU*, 1st Edition. Oakbrook Terrace, Illinois: Joint Commission Resources, 2004.
- Pronovost, Peter J., Needham, Dale M., Waters, Hugh, Birkmeyer, Christian M., Calinawan, Jonah R., Birkmeyer, John D., Dorman, Todd. "Intensive Care Unit Physician Staffing: Financial Modeling of the Leapfrog Standard." *Critical Care Medicine* 32, no. 6 (2004):1247-1253.
- Pronovost, Peter J. *A Passion for Quality. Accelerating Change Today/Care in the ICU: Teaming Up to Improve Quality*. Washington, DC: NCHC/IHI, 2-3 September 2002.

CRITICAL CARE PATIENTS

More than 5 million patients are admitted annually to ICUs in the United States. The five primary ICU admitting diagnoses are, in order: respiratory insufficiency/failure; postoperative management; ischemic heart disorder; sepsis and heart failure. Since 1991, treatment of many serious conditions has become more frequent including gastrointestinal hemorrhage, hemodynamic abnormalities, multiple organ system failure, respiratory insufficiency or failure, sepsis and shock. This can be attributed in part to the aging U.S. population, meaning that the mean age is rising and the number of individuals aged 65 and older is increasing, primarily due to the baby boom generation. This is evident in the dramatic rise in patients 85 years and older, from 4.1% in 1991 to 6.9% in 2004.

Sources:

- Angus, D.C., Kelly, M.A., Schmitz, R.J., White, A., Popovich, J., Committee on Manpower for Pulmonary and Critical Care Societies. "Current and Projected Workforce Requirements for Care of the Critically Ill and Patients With Pulmonary Disease: Can We Meet the Requirements of an Aging Population?" *JAMA: Journal of the American Medical Association* 284, no. 21 (2000):2762-2770.
- Joint Commission Resources. *Improving Care in the ICU*, 1st Edition. Oakbrook Terrace, Illinois: Joint Commission Resources, 2004.
- Society of Critical Care Medicine. *Critical Care Units: A Descriptive Analysis*, 1st Edition. Des Plaines, Illinois: Society of Critical Care Medicine, 2005.

ICU FACILITIES

There are approximately 6,000 ICUs in the United States, caring for 55,000 critically ill patients each day. In 2001, the total number of "adult" ICU beds (cardiac, medical/surgical, other ICU, and burn care) was 66,199, and the total number of "pediatric" ICU beds (neonatal and pediatric) was 20,610.

For additional information, please see the update to the landmark 1991 Groger Survey in the Society of Critical Care Medicine's book *Critical Care Units: A Descriptive Analysis*.

Sources:

- Angus, D.C., Kelly, M.A., Schmitz, R.J., White, A., Popovich, J., Committee on Manpower for Pulmonary and Critical Care Societies. "Current and Projected Workforce Requirements for Care of the Critically Ill and Patients With Pulmonary Disease: Can We Meet the Requirements of an Aging Population?" *JAMA: Journal of the American Medical Association* 284, no. 21 (2000):2762-2770.
- 2001 Health Forum, LLC (HealthDisc 2.0 – Summer 2002), American Hospital Association.

LENGTH OF STAY

A 30% reduction in ICU length of stay (LOS) can be realized when care is delivered by an intensivist-directed multiprofessional team. Studies have shown that the average LOS is 6.1 days when care is provided by an intensivist compared with 9.3 days when care is provided by an attending physician.

Sources:

- Combs, Arthur H., Rainey, Thomas G. "Making the Business Case." Critical Care Summit: ICU Quality and Cost, Society of Critical Care Medicine, 2003.
- Joint Commission Resources. *Improving Care in the ICU*, 1st Edition. Oakbrook Terrace, Illinois: Joint Commission Resources, 2004.

SHORTAGE

The increase in patient demand for critical care services, caused by the aging population and advances in medicine that extend life expectancy, have put a tremendous strain on critical care. Although there was a 5.2% increase in fellows in critical care subspecialty programs between 2003/2004 and 2004/2005, signifying that the number of physicians entering critical care is growing, the long-standing shortage of nurses, clinical pharmacists and respiratory therapists will make it difficult to meet patient demand. Research indicates that the demand will create a shortfall of intensivist hours equal to 35% of demand by 2020.

The Society of Critical Care Medicine is a member of the Critical Care Workforce Partnership that is working to propose solutions to alleviate the workforce shortage in the U.S. healthcare system. The Partnership represents four medical societies whose more than 100,000 members are integral to critical care delivery: the American Association of Critical-Care Nurses (AACN), American College of Chest Physicians (ACCP), American Thoracic Society (ATS), and the Society of Critical Care Medicine (SCCM).

Sources:

- Angus, D.C., Kelly, M.A., Schmitz, R.J., White, A., Popovich, J., Committee on Manpower for Pulmonary and Critical Care Societies. "Current and Projected Workforce Requirements for Care of the Critically Ill and Patients With Pulmonary Disease: Can We Meet the Requirements of an Aging Population?" *JAMA: Journal of the American Medical Association*. 284, no. 21 (2000):2762-2770.
- *Acute Care Hospital Survey of RN Vacancy and Turnover Rates in 2000*. American Organization of Nurse Executives, January 2002.
- Brotherton, S.E., Rockey, P.H., Etzel, S.I. "U.S. Graduate Medical Education, 2004-2005: Trends in Primary Care Specialties." *JAMA: Journal of the American Medical Association*. 294, no. 9 (2005):1075-1082.
- U.S. Department of Health and Human Services Health Resources and Services Administration. "The Critical Care Workforce: A Study of the Supply and Demand for Critical Care Physicians." May 2006.
- Joint Commission Resources. *Improving Care in the ICU*, 1st Edition. Oakbrook Terrace, Illinois: Joint Commission Resources, 2004.

STAFFING/SALARY

Patient care in the ICU is best provided by an integrated team of dedicated experts directed by a trained and present physician credentialed in critical care medicine (an intensivist). The team may consist of critical care nurses, intensivists, nurse practitioners, pharmacists, physician assistants, physician specialists, primary care physicians, respiratory therapists, other professionals, and patients and their families.

Nearly 8,100 intensivists and 400,000 critical care nurses practice in the United States. The average base salary for a critical care staff physician is \$180,580; \$61,087 for a critical care staff nurse; \$75,638 for a nurse practitioner; \$46,071 for a staff critical care respiratory therapist; and \$89,601 for a clinical pharmacist.

Sources:

- American Association of Critical-Care Nurses, American College of Chest Physicians, American Thoracic Society and Society of Critical Care Medicine. "The Aging of the U.S. Population and Increased Need for Critical Care Services. Critical Care Workforce Partnership Position Statement." November 2001.
- Joint Commission Resources. *Improving Care in the ICU*, 1st Edition. Oakbrook Terrace, Illinois: Joint Commission Resources, 2004.
- Society of Critical Care Medicine. *Compensation of Critical Care Professionals*, 1st Edition. Des Plaines, Illinois: Society of Critical Care Medicine, 2005.



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