

## Creating a 21<sup>st</sup> Century Nursing Workforce to Care for Older Americans: Modernizing Medicare Support for Nursing Education

Medicare has long supported the development of the nation’s health care workforce with targeted funding for both medical and nursing education. Over the years, training for both physicians and nurses has centered in hospitals, which served as the major site of care for Medicare beneficiaries. Over time, however, the care needs and site of care for the Medicare population have gradually shifted out of the hospital. Medicare support for health care workforce education likewise needs to shift to better prepare the workforce to meet the evolving health care needs of older Americans. This report describes the evolving needs of the Medicare population and federal policy changes that would support the preparation of the nursing workforce with the skills necessary to meet those needs. It concludes that Medicare funding for nursing education should be directed toward increasing the education of Advanced Practice Registered Nurses. Recent analyses indicate that federal support for a Medicare Graduate Nursing Education (GNE) program could significantly increase the number of nurses with the skills necessary to address the emerging health care priorities of the Medicare population.

### The Changing Needs of Medicare Recipients

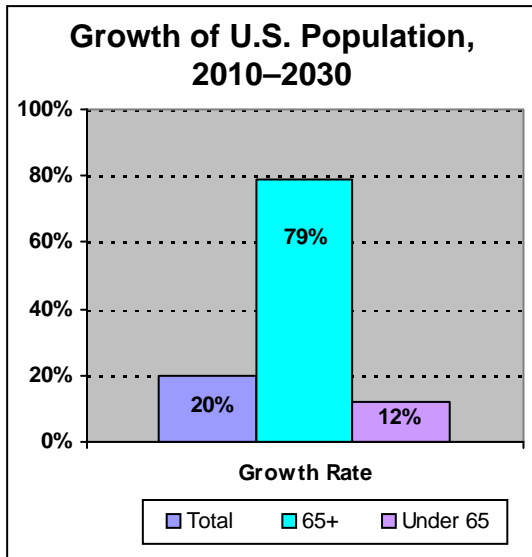
#### Evolution of the Health Care Delivery System

One of the most significant changes in health care delivery has been the shift in the site of care from the hospital setting to an array of community settings—clinics, ambulatory care centers, and the patient’s home. This shift is the consequence of a number of factors. For one, cost containment strategies and managed care contributed to shorter hospital stays. The average length of inpatient hospital stays has shortened dramatically for persons 65 years and older, from 8.7 days in 1990 to 5.5 days in 2006.<sup>1</sup> Advances in health care technologies enabled more procedures

to be performed on an outpatient basis, accounting for 63 percent of total surgeries in community hospitals in 2006 compared to 51 percent in 1990.<sup>2</sup>

#### An Aging Population with Complex Health Conditions

The most significant trend affecting future demand for Medicare health care services is the overall growth and aging of the population. While the U.S. population is projected to increase by 20 percent between 2010 and 2030, the population age 65 and older is projected to increase by 79 percent and the under age 65 population by only 12 percent.<sup>3</sup> These demographic changes will result in a substantial increase in the demand for Medicare-funded services.



Not only are the numbers of 65+ population increasing, life expectancy is also increasing. In 2006, American men could expect to live 3.6 years longer, and women 1.9 years longer, than they did in 1990.<sup>4</sup> While longer life spans are desirable, the growth in the elderly population combined with longer life expectancy will result in more Medicare beneficiaries with chronic disease who need primary care and care management.

Chronic illness in America afflicts nearly one-half of its citizens and is densely concentrated among its elderly: more than 83 percent of persons over age 65 have at least one chronic illness.<sup>5</sup> Furthermore, 23 percent have five or more chronic conditions, regularly visit 13 different physicians, and annually fill over 50 prescriptions.<sup>6</sup>

The number of chronic diseases, such as hypertension, heart disease, arthritis, and diabetes, increases with age, and all benefit from ongoing care management to prevent premature deterioration and enhance quality of life, resulting in more demand for health care services. In 2007, Medicare beneficiaries with four or more chronic conditions consumed more than two-thirds of Medicare dollars.<sup>7</sup> The breadth and depth of chronic disease among this population leaves them and the

Medicare program responsible for their health care costs vulnerable to the health and financial consequences of fragmented and ineffectually managed care.<sup>8</sup>

Chronic care management, an imperative for the growing population of the chronically ill, is a significant challenge and requires the use of strong interdisciplinary teams and the development of care management skills.<sup>9</sup> Nurses will need the skills to provide comprehensive, coordinated care, to work with interdisciplinary provider teams, and to educate patients and families in prevention and self care. Most important, if nurses are to meet the needs of the older population, they should receive clinical education beyond the walls of a hospital.

The demand for primary care is increasing and the number of health care professionals must be increased, especially to meet the health care demands of the growing Medicare population. In its June 2009 Report to Congress,<sup>10</sup> the Medicare Payment Advisory Committee called for precedent-setting reform in Medicare's support for medical education by increasing the number of primary care physicians and expanding their training in ambulatory and community-based settings. In an April 2009 meeting, "Developing a Strong Primary Care Workforce" convened by the Josiah Macy Jr. Foundation,<sup>11</sup> primary care leaders from across the country highlighted the critical need for a strong interdisciplinary primary care workforce with enhanced community-based training.

### **Evidence of How APRNs Address the Health Care Needs of the Medicare Population**

An aging population with increasing chronic conditions requires health care services that are focused on primary care, disease management, care coordination, transitional care, and prevention of disease

## APRN Roles

APRNs practice in four specialty areas: Clinical Nurse Specialists, Nurse Practitioners, Certified Registered Nurse Anesthetists, and Certified Nurse-Midwives.

**Nurse Practitioners (NP)** conduct physical exams; diagnose and treat common acute illnesses and injuries; provide immunizations; manage high blood pressure, diabetes, and other chronic problems; order and interpret X-rays and other lab tests; and counsel patients on adopting healthy lifestyles and health care options as a part of their clinical roles. Nurse practitioners can prescribe medications in all states, while 25 states have given NPs authority to practice independently without physician collaboration or supervision.

**Clinical Nurse Specialists (CNS)** provide nursing care in a range of specialty areas, such as cardiology, oncology, neurology, gerontology, and psychiatric/mental health. Working in hospitals and other clinical sites, CNSs provide acute and chronic care management, develop quality improvement procedures, and serve as educators and consultants.

**Certified Nurse-Midwives (CNM)** provide women's health services, including primary and gynecological services, at community health centers, public health clinics, women's health centers, private MD/CNM offices, and HMO clinics. They have prescription-writing authority in all 50 states.

**Certified Registered Nurse Anesthetists (CRNA)** administer more than 65 percent of all anesthetics given to patients each year, and are the sole anesthesia providers in approximately two-thirds of all rural hospitals in the United States. CRNAs administer anesthesia for all types of surgery in settings ranging from operating rooms and dental offices to outpatient surgical centers. CRNAs also provide pain management care.

deterioration. Some are calling for more primary care physicians. But research shows that APRNs are equally suited to providing the necessary care and would be a better policy solution. Nursing has been identified as having the potential for significantly influencing the transformation of health care delivery to a safer, higher quality, and more cost-effective system.<sup>12</sup> The idea of NPs as primary care providers to increase access to quality care in the future is being advanced by several groups, including the American College of Physicians, acknowledging that NPs play a critical role in improving access to primary care.<sup>13</sup>

Two big reasons nurses are a good choice for advancing primary care: effectiveness and efficiency. Studies comparing nurse practitioners and physicians in primary

care consistently find that NPs provide equivalent and in some respects, better care than physicians.<sup>14</sup> A 1995 meta-analysis comparing the primary care practice of NPs and physicians found that the quality of care was equivalent, patients were more satisfied with care by NPs,<sup>15</sup> and there was greater patient compliance with treatment recommendations by NPs.<sup>16</sup>

More recent work confirms those earlier findings: patient satisfaction, health status, and health services utilization were comparable between NPs and physicians.<sup>17</sup> Research shows that APRNs provide equivalent care, and they are cost-effective because the care they provide often prevents the need for more costly care in the future.<sup>18</sup> For example, the Department of Veterans

Affairs uses APRNs extensively in providing care to veterans. The department's Home Based Primary Care Program, managed and staffed with APRNs, reduced costly hospital lengths of stay from 14.8 days to 5.6 days and nursing home admissions from 26.8 percent to 3.2 percent in the population served.<sup>19</sup>

Research indicates that APRNs provide cost-effective health care in hospitals and community-based settings in metropolitan areas and rural areas, in inner cities, and other locations not adequately served by physicians. Moreover, the supply of APRNs can be increased more rapidly than the supply of physicians. APRNs are already RNs before they enter advanced education programs that are completed in approximately two years. Consequently they are substantially less expensive to train than physicians. Tuition and fees are approximately \$50,000 for the graduate preparation of APRNs, compared to tuition and fees for medical students of approximately \$120,000.<sup>20</sup>

Health care reform will require new partnerships and an effective workforce to improve access to care and produce better health outcomes, while controlling costs. APRNs are prepared with the advanced skills necessary to provide primary and preventive care, transitional care, chronic care management, and other nursing services for the Medicare population. Bringing hospitals, nursing schools, and community-based care settings together in partnership for the preparation of additional APRNs will result in cost-effective, quality care for the Medicare population.

Unfortunately, nursing is facing a shortage that has and will impede from APRNs meeting the needs of the Medicare population. At current enrollment rates, an estimated shortage of 260,000 RNs is forecasted by

Buerhaus and others over the next 15 years, double in size to any shortage experienced since Medicare and Medicaid were enacted.<sup>21</sup> Chief among the many factors contributing to the shortage, enrollment in nursing schools is not keeping up with the growing demand for nurses. The problem is not driven by lack of interest in nursing as a career. Instead, it is impelled by a significant inadequacy in the supply of faculty to teach future registered nurses (RNs). According to the American Association of Colleges of Nursing, U.S. nursing schools turned away 49,948 qualified applicants from baccalaureate and graduate nursing programs in 2008. Almost two-thirds of the responding schools gave faculty shortages as a reason for not accepting all qualified applicants into the entry-level baccalaureate programs.<sup>22</sup> This problem is compounded by an aging faculty; fully half of nursing school faculty indicate that they plan to retire within 10 years.<sup>23</sup>

By realigning Medicare payments for nursing education to support the preparation of APRNs, the pool of RNs with graduate degrees, and therefore qualified for nursing faculty positions, grows. This will significantly contribute to alleviating the lack of capacity in classroom and clinical settings and, in turn, the projected shortage of over a quarter of a million RNs in just 15 years.

### **Medicare Reimbursement for Nursing Education: How It Works**

Medicare reimburses hospitals for the costs of approved education activities in the nursing education programs that hospitals directly operate. In 2006 Medicare paid these hospitals approximately \$152 million for nursing education costs.<sup>24</sup> These hospital-based programs are predominantly diploma programs, which were the most common nursing preparation programs when Medicare was enacted in 1965. Medicare

reimburses hospitals for costs incurred for student stipends, compensation of teachers, and other costs of preparing students to become registered nurses (RNs).<sup>25</sup>

Since Medicare was enacted, associate and baccalaureate degree programs in our nation's colleges and universities have gradually replaced hospital-based diploma programs; therefore the number of RNs graduating from diploma schools has declined. In 2007, only 4 percent of RNs were trained in hospital-based diploma programs.<sup>26</sup> Programs for graduate nursing education have also increased in the nation's colleges and universities, producing Advanced Practice Nurses, now more commonly called Advanced Practice Registered Nurses (APRNs), with the knowledge and expertise to provide primary and preventive care, transitional care, chronic care management, and other services needed by the Medicare population.

In the past five years, Master's in Nursing graduates increased from 10,260 in 2004 to 15,912 in 2008, an annual average increase of 10.9 percent each year.<sup>27</sup> Despite these gains, the supply of these highly skilled nurses will still fall short of meeting the demand driven by an aging America.

### **Realigning Medicare Nursing Education Payments**

Solutions to the shortage of primary care providers should include support for the education of more appropriately skilled nurses to care for Medicare beneficiaries and help implement delivery system modernization. An investment in APRNs will provide nurses who can deliver the complex care needed not only in acute care, but also in home and community-based settings.

The federal government should consider adopting a new approach to Medicare

reimbursement for nursing education by establishing a program of Medicare Graduate Nursing Education (GNE). This program would shift the current focus to nursing education at the graduate level. It would also expand clinical education provided through Medicare funding to include home and community-based settings as well as hospitals, using affiliations between accredited schools of nursing and community-based health care settings.

Reimbursement would be focused on graduate nursing education costs that lead to the preparation of APRNs with the skills necessary to provide primary and preventive care, transitional care, chronic care management, and other nursing services appropriate for the Medicare population.

### **Projected Outcomes of Medicare GNE**

Graduate nursing programs currently produce approximately 12,000 APRNs each year.<sup>28</sup> This policy recommendation is aimed at increasing the numbers by providing Medicare support for preparing these highly skilled nurses.

Reimbursement for classroom and clinical instruction costs will serve to incentivize schools to increase enrollment. Medicare reimbursement for costs associated with the clinical training of APRN students both at hospitals and community-based care settings will expand clinical placement options. Likewise, Medicare reimbursement for allowable costs incurred by graduate nursing education programs will, for example, enable schools to pay faculty members more competitive salaries. Student stipends can serve as incentives for students who are part-time because of economic considerations to become full-time and enter practice as APRNs sooner.

Teaching hospitals that have nursing school affiliations are more likely to immediately participate in this proposed system. Other hospitals that have

informal relationships with nursing schools and/or community-based care settings may take longer to formalize relationships. Full implementation would likely take approximately three years, involve at least 50 percent of the nation's graduate nursing programs, and yield a 25 percent increase in the production of APRN graduates per year. The result would be an additional 3,100 APRNs added to the nursing workforce annually, at a cost that is estimated to be slightly less than the current investment of Medicare in nursing education.<sup>29</sup>

Health care reform will require new partnerships and an effective workforce to improve access to care and produce better health outcomes, while controlling costs. APRNs are prepared with the advanced skills necessary to provide primary and preventive care, transitional care, chronic care management and other nursing services for the Medicare population. Bringing hospitals, nursing schools, and community-based care settings together in partnership for the preparation of additional APRNs will result in cost-effective, quality care for the Medicare population.

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<sup>1</sup> Table 102. Discharges, days of care, and average length of stay in nonfederal short-stay hospitals, by selected characteristics: United States, selected years 1980–2006. National Center for Health Statistics (2008). Health, United States, 2009 with Chartbook. Hyattsville, MD. Accessed at <http://www.cdc.gov/nchs/data/hus/hus08.pdf#101>.

<sup>2</sup> Table 106. Hospital admissions, average length of stay, outpatient visits, and outpatient surgery by type of ownership and size of hospital: United States, selected years 1975–2006. National Center for Health Statistics (2008). Health, United States, 2009 with Chartbook. Hyattsville, MD. Accessed at <http://www.cdc.gov/nchs/data/hus/hus08.pdf#101>.

<sup>3</sup> Table 2. Projections of the Population by Selected Age Groups and Sex for the United States: 2010 to 2050 (NP2008-T2). Source: Population Division, U.S. Census Bureau. Release Date: August 14, 2008.

<sup>4</sup> Table 26. Life expectancy at birth, at 65 years of age, and at 75 years of age, by race and sex: United States, selected years 1900–2005. National Center for Health Statistics Health, United States (2008) Health, United States, 2009 with Chartbook. Hyattsville, MD. Accessed at <http://www.cdc.gov/nchs/data/hus/hus08.pdf#101>.

<sup>5</sup> Partnership for Solutions, “Chronic Conditions: Making the Case for Ongoing Care,” September 2004 update, <http://www.partnershipforsolutions.org/> (accessed 21 June 2008); Anderson, G. F. “Medicare and Chronic Conditions,” *New England Journal of Medicine* 353, no. 3 (2005): 305–309.

<sup>6</sup> Anderson, G. F. “Medicare and Chronic Conditions,” *New England Journal of Medicine* 353, no. 3 (2005): 305–309.

<sup>7</sup> Institute of Medicine, Board on Health Care Services. *Retooling for an Aging America: Building the Health Care Workforce* (Washington, DC: National Academies Press, 2008).

<sup>8</sup> Bodenheimer, T. “Coordinating Care—A Perilous Journey through the Health Care System,” *New England Journal of Medicine* 358, no. 10 (2008): 1065–1071.

<sup>9</sup> Ibid.

<sup>10</sup> Medicare Payment Advisory Committee. Report to the Congress. *Improving Incentives in the Medicare Program* (Washington, DC: Medicare Payment Advisory Committee; June 2009).

<sup>11</sup> Josiah Macy, Jr. Foundation. “Summary of the Meeting: Developing a Strong Primary Care Workforce, April 2009. Accessed at: [http://www.macyfoundation.org/documents/jmf\\_primarycare\\_summary.pdf](http://www.macyfoundation.org/documents/jmf_primarycare_summary.pdf).

<sup>12</sup> Nelson, E. A., Batalden, P. B., and Godfrey, M. M. *Quality by Design: A Clinical Microsystems Approach*. (San Francisco, CA: Jossey-Bass, 2007).

<sup>13</sup> American College of Physicians. *Nurse Practitioners in Primary Care*. Philadelphia: American College of Physicians; 2009: Policy Monograph. (Available from American College of Physicians, 190 N. Independence Mall West, Philadelphia, PA 19106.)

<sup>14</sup> Horrocks, S., Anderson, E., and Salisbury, C. “Systematic Review of Whether Nurse Practitioners Working in Primary Care Can Provide Equivalent Care to Doctors,” *British Medical Journal* 324, no. 7341 (2002): 819–823.

<sup>15</sup> Ibid.

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<sup>16</sup> Brown, S., and Grimes, D. "A Meta-Analysis of Nurse Practitioners and Nurse Midwives in Primary Care," *Nursing Research* 44 (1995): 331–39.

<sup>17</sup> Munding, M.O., et al. "Primary Care Outcomes in Patients Treated by Nurse Practitioners or Physicians," *Journal of the American Medical Association* 283 (2000): 59–68.

<sup>18</sup> PricewaterhouseCoopers Health Research Institute. What Works: Healing the Healthcare Staffing Shortage. Accessed at [www.pcw.com](http://www.pcw.com).

<sup>19</sup> Jensen, P. K. "The Primary Role of Nurse Practitioners," Capitol Hill presentation 05/19/09.

<sup>20</sup> Table 1: U.S. Medical Schools Tuition and Student Fees – First Year Students, 2009–2009 and 2007–2008. Source: AAMC Tuition and Student Fees Survey. [https://services.aamc.org/tsfreports/report\\_median.cfm?year\\_of\\_study=2009](https://services.aamc.org/tsfreports/report_median.cfm?year_of_study=2009).

<sup>21</sup> Buerhaus, P. I., Auerbach, D. I., and Staiger, D. O. "The Recent Surge in Nurse Employment: Causes and Implications," *Health Affairs* 28, no. 4 (2009) w657–w668 (published online 12 June 2009).

<sup>22</sup> American Association of Colleges of Nursing. 2008–2009 Enrollment and Graduations in Baccalaureate and Graduate Programs in Nursing. Accessed at <http://www.aacn.nche.edu/Media/FactSheets/FacultyShortage.htm>.

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<sup>26</sup> Graduations from Prelicensure RN Programs by Program Type, 2006–07, National League of Nursing. Accessed at: [http://www.nln.org/research/slides/xls/AS0607\\_14.xls](http://www.nln.org/research/slides/xls/AS0607_14.xls)

<sup>27</sup> Fang, D., Tracy, C., and Bednash, G. D. 2008–2009 Enrollment and Graduations in Baccalaureate and Graduate Programs in Nursing (American Association of Colleges of Nursing, 2009).

<sup>28</sup> Ibid.

<sup>29</sup> The Lewin Group, Inc. *Medicare Graduate Nurse Education New Proposal: Description and Benefits – Draft Report*. (Falls Church, VA: The Lewin Group, Inc.; May 15, 2009) (prepared for AARP).

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