

Reduce Avoidable Hospitalisations: A Policy to Increase Value from Health Care Expenditures

Introduction

The failure to provide timely and adequate access to primary and preventive health care results in unnecessary illness and loss of productivity, as well as many costly hospitalisations that could be avoided. Population ageing and the increase of patients with multiple chronic conditions make this failure an important concern for the European Union.¹

One way to capture the magnitude of this problem is to measure rates of ‘avoidable hospital conditions’ (AHC). AHCs are inpatient hospitalisations for conditions that can be treated and managed effectively by community-based health professionals and, in most cases, should not require expensive inpatient hospital care. These conditions include hospitalisations for pneumonia, congestive heart failure, diabetes, and asthma. The measurement of hospitalisations for AHCs is only one dimension of health system performance. But in thinking about how health systems can assure access through a combination of health insurance coverage, availability of primary care doctors and safety net providers, AHCs are recognised in the literature—in Britain, Canada, France, Spain, and the United States—as a valid indicator of access to primary care.²

In this policy brief, we examine rates of AHC in France and England to evaluate access to primary care and identify the extent to which these countries may be able to reduce hospital costs by investing in disease management and primary care. We find that, in these two countries, there are about one million hospitalisations that could be avoided each year with better access to timely and effective primary care and disease management. Furthermore, we suggest how publicly available hospital administrative data can be used to help target recent efforts to introduce disease management services, improve primary health care, and monitor these efforts over time.

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By Michael K. Gusmano, Daniel Weisz, Talley Andrews, and Victor G. Rodwin

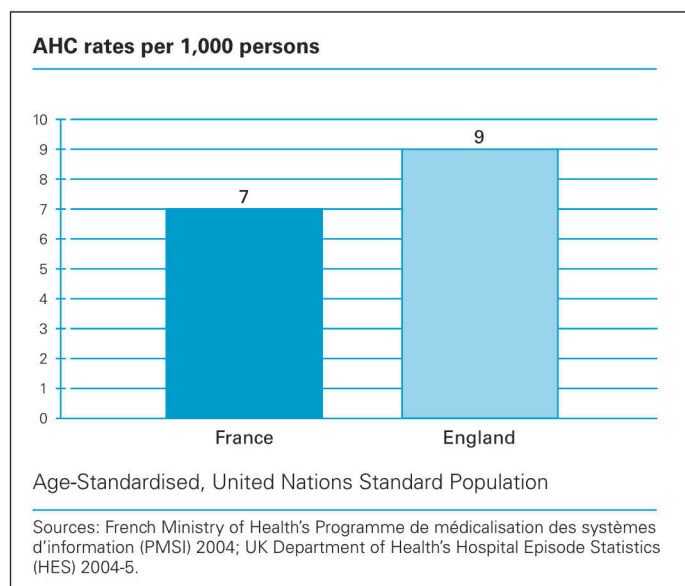
Avoidable Hospitalisations and Access to Timely and Appropriate Primary Care

Among adults, AHCs include hospitalisations for pneumonia, congestive heart failure, diabetes, and asthma. Although pneumonia represents an acute condition, most of the diagnoses are chronic conditions. Some of the conditions included in the definition of AHCs, like polio, are completely avoidable through immunisation. Others, like pneumonia, can be avoided if the disease is caught early and managed well. For many of the conditions, it is unlikely that any health system would be able to eliminate all hospitalisations. Yet, effective management of these conditions should result in significant reductions in the number of acute flare-ups leading to hospitalisation.

Avoidable Hospitalisations in France and England

To calculate hospital discharge rates for AHCs, we used the definition validated by previous studies.³ It includes hospitalisations for pneumonia, congestive heart failure, asthma, cellulitis, perforated or bleeding ulcer, pyelonephritis, diabetes with ketoacidosis or coma, ruptured appendix, hypertension, hypokalemia, immunisable conditions, and gangrene.⁴

We found that for adults (20 years and older), age-adjusted hospital admission rates for AHCs were about 20 percent lower in France than in England in 2004 (see chart). These differences are striking since England has fewer hospital beds and a lower total hospitalisation rate than France. Moreover, the differences are consistent with our comparative analysis of Paris and Manhattan, in which we found that neither the number of hospital beds nor the number of physicians affects the odds of being hospitalised with an AHC.⁵



Millions of Potentially Avoidable Hospital 'Bed Days'

The total number of avoidable hospitalisations in France and England are enormous, and the potential savings associated with reducing them are great. In France there were more than 400,000 hospitalisations for AHCs among adults in 2004, with an average length of stay of about 5.5 days. This represents about two million total bed days. In England, there were more than 600,000 hospitalisations for AHCs among adults with an average length of stay of 6.3 days. This represents about four million total bed days. Together, these represent billions of euros in potentially avoidable hospital expenditures.

Efforts to Address Chronic Illness in France and England

Since older adults with chronic conditions account for a disproportionate share of health expenditures,

policymakers in all European health systems have attempted to improve coordination of health services for patients with chronic conditions. Interest in disease management and primary care gatekeeping has grown in Europe since the late 1990s.⁶ In 2004, France enacted a health care reform plan under the leadership of Health Minister Philippe Douste-Blazy.⁷ The most important feature of the new law is the promotion of *la maîtrise médicalisée*, which calls for the development and application of managed care techniques, including computerised medical records, practice guidelines, and incentives to encourage primary care physicians to coordinate health services for their patients. At the present time, more than 75 percent of the French population has signed up with a *médecin traitant* (a GP or family doctor). Moreover, one of the key architects of the health care reform plan, Frédéric Van Rookeghem, is now promoting disease management techniques in his new capacity as director general of the national health insurance funds (UNCAM).

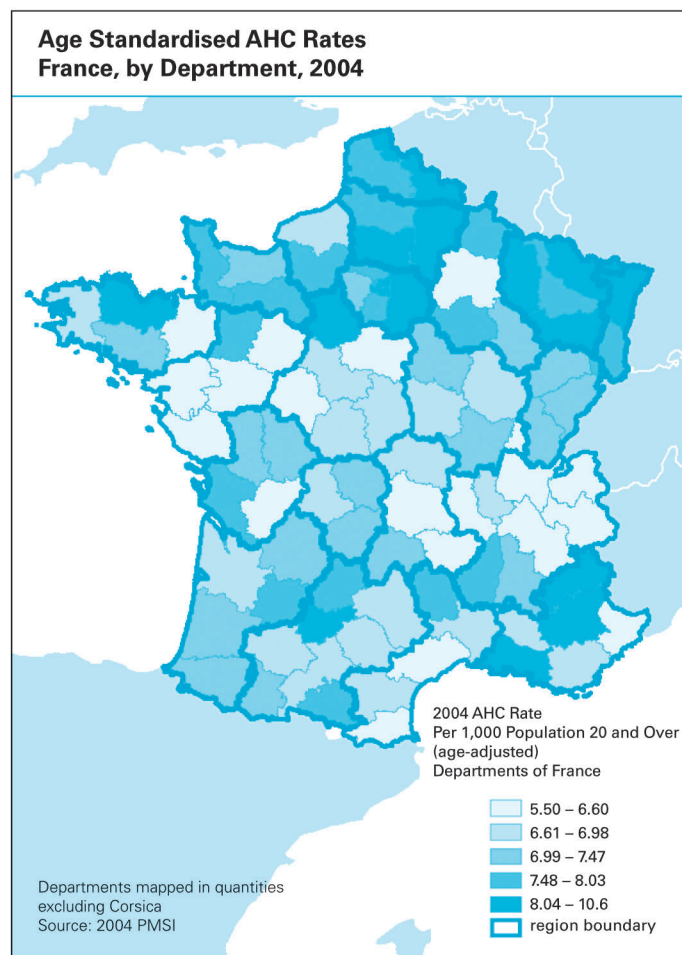
In the United Kingdom, the Department of Health's 'national service frameworks' have promoted strategies to reduce hospitalisations for various conditions. In 2000, it issued a national service framework for the treatment of coronary heart disease and the following year for diabetes. These frameworks are part of a larger effort to address health disparities and improve the performance of primary care doctors. They set national standards, define service models, develop strategies to support implementation and establish performance measures against which progress is measured.⁸ As in the case of France, the impact of these reforms is not yet clear and requires carefully monitoring.

Such policy developments are promising because there is now a large body of evidence which suggests that disease management and chronic-care models, if designed properly, can improve primary care and reduce hospitalisations among persons with a variety of health conditions, including chronic conditions.⁹ To be successful, however, the hospital sector must recognise the value of reducing the number of admissions and the length of stay among patients, community-based health care providers must have incentives to implement them, and there must be sufficient coordination among health care providers to address the needs of persons with multiple chronic conditions.¹⁰ The returns associated with such programs are also greater if they are targeted to individuals who are at highest risk of hospitalisation. Examining hospital discharge rates of AHCs within

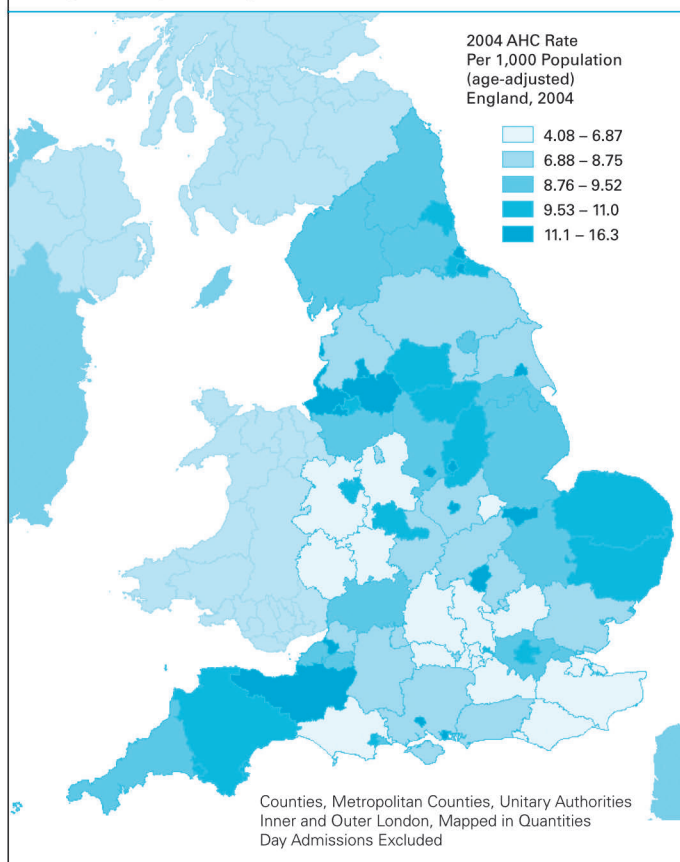
countries could be used to enhance existing programs by targeting disease management efforts to areas of greatest need. Moreover, this indicator would provide a valuable baseline against which to measure the impact of these efforts during the next several years.

How Can Analysis of Avoidable Hospitalisations Improve Policy and Management?

The maps below show age-standardised rates of hospital discharge for AHCs by department in France and by county, or single-unit authority, in England. Regional variations in these rates are substantial, particularly in England. In England, Nottingham's age-standardised rate of hospital discharges for AHCs (16.2 per 1,000) is about four times higher than Staffordshire (4.1 per 1,000). In France, regional level disparities are not as great but still noteworthy. Seine-St-Denis has an age-standardised rate of hospital discharges for AHCs (10.6 per 1,000) which is almost twice the rate for Pyrénées-Orientales (5.5 per 1,000). Focusing initial disease management efforts on the regions with the highest rates may be an effective strategy for targeting disease management services and improving primary care.



Age Standardised AHC Rates England, by County, 2004



Beyond examining hospital discharge rates for AHCs for the purpose of targeting disease management and addressing regional disparities in access, this indicator can also be used to assess the impact of disease management and other interventions at a population level. The challenges associated with successfully implementing disease management programs are substantial, but if such efforts involve a sufficiently large group of people, they should result in lower age-standardised rates of AHC. Although rates of AHC and other population-level indicators should not substitute for clinical evaluations, they can provide an important complementary source of information that captures the magnitude of the gains associated with these investments in primary care.

Conclusions

The cost associated with the care of chronic disease is a major concern for governments throughout Europe. Our analysis suggests that France and England alone could reduce hospital spending by billions of euros each year by improving the ambulatory care provided to persons with pneumonia, cellulitis, and a host of chronic conditions, including congestive heart failure, diabetes, asthma, and chronic obstructive pulmonary disease. Both nations have opportunities to improve care and reduce hospital admissions. Even in France, which enjoys a lower rate of AHC than England, there are more than 400,000 potentially avoidable hospitalisations, representing approximately two million bed days each year.

To achieve such reductions, it may be necessary to invest additional resources both to expand and to improve ambulatory care. Recent efforts to design and implement disease management and chronic-care models within these nations reflect a commitment to make such an investment and have the potential to improve the quality and efficiency of care. To maximise the probability of success, it is crucial to target these efforts to populations in greatest need and to evaluate the success of these efforts over time. Examining rates of AHC, that are based on routinely collected, publicly available hospital administrative data, can be a useful component of this evaluation strategy.

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