



UNITED STATES  
DEPARTMENT OF VETERANS AFFAIRS

Report of the Task Group for  
**INNOVATIVE 21<sup>ST</sup> CENTURY  
BUILDING ENVIRONMENTS  
FOR VA HEALTHCARE DELIVERY**





# EXECUTIVE SUMMARY

Transformation to 21<sup>st</sup>-century care delivery presents the Department of Veterans Affairs (VA) with critical challenges similar to those confronting private sector healthcare facility owners and operators. Healthcare facilities must meet new requirements to optimize care, increase productivity, enhance sustainability, and improve disaster resistance, while reducing energy consumption and operating and maintenance expenses. Facilities may become outdated by emerging medical practices and technologies; older facilities may be vulnerable to disasters and inaccessible to patients, caregivers, and other users. Additionally, increasing operating costs in both new and existing facilities lead to deferred maintenance resulting in significantly reduced performance.

The National Institute of Building Sciences (NIBS) coordinated the VA exploration for a new paradigm that would transform VA care for the 21<sup>st</sup> century by creating a new generation of high-performance, sustainable healthcare environments for the changing population of veterans. NIBS convened a multi-disciplinary Task Group to investigate and document the state of practice and art for high-performance, sustainable, and flexible environments for healing. The Task Group (see page 1-17) was composed of more than 25 architects, engineers, hospital administrators, doctors and healthcare professionals, and other renowned experts in the healthcare industry. A VA Advisory Group, comprising VA representatives, complemented the Task Group and provided data and information on the current practices of VA operations and facilities.

The Task Group was charged with making specific recommendations, based on 21<sup>st</sup>-century opportunities and technologies, to develop and implement comprehensive and innovative solutions for new and renovated healthcare facilities. The purpose of the recommendations is to transform VA care into the most effective healthcare facility system for veterans, based on anticipated needs and state-of-the-art solutions. This report details the assumptions, conclusions, and recommendations resulting from Task Group deliberations.

The Task Group made five assumptions during the course of its deliberations.

1. Building design decisions critically influence health outcomes and the quality of care.
2. Building design decisions critically influence the nature of operations and the costs of services provided.
3. VA care delivery is transitioning from inpatient care to home- and community-based care.
4. VA has a substantial inventory of existing facilities that may or may not be suitable to meet current standards of care.
5. To meet the changes to transform the delivery of health, rehabilitative, mental health, and long-term care services, VA needs near-term guidance on facility development, operations, and maintenance.

The Task Group divided into nine topical committees to study and make recommendations across the full range of transformative and innovative design principles, technologies, and business practices for improving the environment of care. The following is a brief synopsis of each. Full recommendations from the nine committees make up Part 2 of this report.

1. Care Optimization: *Provide more effective and efficient building environments that can flexibly accommodate and adapt to more optimized functional processes and procedures.*
2. Healing Environments: *Provide buildings designed to support the creation of optimal healing environments that reduce adverse health and safety threats, improve health outcomes, expedite patient recovery, and promote the overall health and wellbeing of occupants, the communities in which facilities are located, and global environmental conditions.*
3. Satisfaction: *Provide building environments that respond to veteran, family, and staff needs and provide for a more satisfying healthcare experience for these populations.*
4. Adaptability: *Provide transformable building environments that accommodate changing needs, functional programs, and care-delivery practices over time.*
5. Sustainability: *Provide sustainable building environments that meet the needs of the present without compromising the ability of future generations to meet their own needs.*
6. Building Operations and Maintenance: *Provide more effective and efficient building environments through innovative monitoring, operations, and maintenance.*
7. Building Acquisition: *Provide more effective and efficient strategies for the acquisition and delivery of new healthcare buildings and for their ongoing adaptation and expansion.*
8. Data Acquisition: *Provide self-monitoring facility environments that become a source of research data and information.*
9. Continuous Innovation: *Develop new solutions for optimum coordination of best practices in healthcare and in the design, adaptation, and operations for the transformation of healthcare facilities that will provide 21<sup>st</sup>-century care.*

The Task Group as a whole developed five principal conclusions with supporting recommendations that are applicable to the transformation of new and renovated healthcare facilities.

- 1. Organizational collaboration is essential to achieve VA goals for transformation to 21<sup>st</sup>-century care.**
  - *Collaboratively develop performance metrics and benchmarks.*
  - *Evaluate and adopt external “best practices” for operational processes.*
  - *Collaborate with industry partners and external groups.*
- 2. Data acquisition, communication, and use are critical to clinical outcomes, cost of care, and effective operational evaluation.**
  - *Support the establishment of an evaluation culture.*
  - *Create “living laboratories” within VA.*
  - *Use data for both research and training of staff.*
- 3. Coordinated decision-making is required to ensure VA goals and objectives are met.**
  - *Explore veteran- and family-centered care in the design of VA facilities.*
  - *Create environments that promote health and safety.*
  - *Define and support the desired veteran experience in the VA care system.*
  - *Conduct case studies of “best practice” environments.*
  - *Investigate business process improvement techniques for the optimization of healthcare service delivery venues.*
  - *Assess institutional barriers that inhibit adaptability of healthcare facilities.*
  - *Strengthen the relationship between sustainable building practices and their positive impact on veteran healing.*
- 4. Implementation of new priorities requires new facility acquisition processes.**
  - *Conduct an assessment of alternative procurement models for obtaining and operating facilities.*
  - *Establish a means of investing in research and innovations beyond budgetary norms where these are likely to produce improved facility acquisition methods or long-term operational savings.*
  - *Investigate potential and actual design impacts of merging the budget authority for capital asset acquisition with the budget for maintenance.*
- 5. Testing and validation of new healthcare delivery concepts is necessary for implementing new ideas.**
  - *Establish an “Innovation Center” within VA.*
  - *Create a panel for advice on new facility delivery methods and design concepts.*

If implemented, these recommendations will provide VA with a model that is not only paramount to the future success of veteran healthcare delivery, but is without precedent in the U.S. healthcare industry. VA is in a position to transform and lead healthcare delivery into a completely new and revolutionary force within our society.