



National Action Plan to Prevent Health Care-Associated Infections:

ROAD MAP TO ELIMINATION



National Action Plan to Prevent Health Care-Associated Infections: Road Map to Elimination

April 2013

http://www.hhs.gov/ash/initiatives/hai/index.html

U.S. Department of Health & Human Services:

Administration for Community Living

Agency for Healthcare Research and Quality

Centers for Disease Control and Prevention

Centers for Medicare & Medicaid Services

Food and Drug Administration

Health Resources and Services Administration

Indian Health Service

National Institutes of Health

Office of the Secretary

Office of the Assistant Secretary for Health

Office of the Assistant Secretary for Planning and Evaluation

Office of the National Coordinator for Health Information Technology

- U.S. Department of Defense
- U.S. Department of Veterans Affairs

TABLE OF CONTENTS

PART 1: EXECUTIVE SUMMARY, METRICS, AND GOALS	
I. Introduction	Page 1
II. PHASE ONE: ACUTE CARE HOSPITALS CHAPTER SUMMARIES	Page 5
III. Phase Two: Chapter Summaries for Select Outpatient Settings	Č
AND INFLUENZA VACCINATION OF HEALTH CARE PERSONNEL	Page 9
IV. Phase Three: Long-Term Care Facilities Chapter Summary	Page 12
V. HAI Prevention Target Goals	Page 14
Table 1. Current HAI Metrics and Targets Five-Year Goals (2009-2013)	Page 15
Table 2. Proposed ESRD Facility HAI Reduction Measures and Goals	Page 17
VI. CONCLUSION: A NATIONAL COMMITMENT TO SAFE, QUALITY HEALTH CARE	Page 19
PART 2: FRAMEWORK	
I. Introduction	Page 20
Table 3. Departmental and HHS Operating Division Roles and Activities	
in Implementing the National Action Plan to Prevent Health Care-Associated	
Infections: Road Map to Elimination	Page 22
Figure 1. Organizational Structure of the HAI Steering Committee	Page 23
Table 4. HHS Action Plan to Prevent Health Care-Associated Infections (2009)	
Priority Areas and Five-Year Goals	Page 24
II. Changing Landscape	Page 28
III. TEN THEMES FOR TRANSLATING STRATEGY TO ACTION	Page 37
IV. Conclusion	Page 40
PART 3: PHASE ONE – ACUTE CARE HOSPITALS	
I. Introduction	Page 41
Chapter 1: Research	
I. Introduction	Page 42
II. Progress Made in HAI Prevention Research, FYs 2008-2011	Page 43
III. STATE OF THE ART AND IDENTIFIED GAPS IN KNOWLEDGE	
AND PRACTICE	Page 46
IV. Long-Term Prioritization, Coordination, and Evaluation	
OF RESEARCH EFFORTS	Page 59
V. CONCLUSION AND VISION FOR THE FUTURE: RESEARCH AS THE	
FOUNDATION OF A LEARNING HEALTH CARE SYSTEM	Page 60
Table 5. Status of Identified Priority Research Projects in the	
2009 HHS HAI Action Plan	Page 62
Chapter 2: Information Systems and Technology	
I. Introduction	Page 64
II. MAINTAINING THE FOUNDATION FOR HAI DATA INTEGRATION AND	
Interoperability	Page 66
III. COORDINATION OF EFFORTS: INTERAGENCY WORKING GROUP	Page 67

IV. WORK GROUP GOALS, TASKS, AND OPERATIONS	Page 68
V. HAI DATA AND DATA INVENTORY	Page 70
VI. INTEGRATING SOURCES OF DATA	Page 71
VII. CHALLENGES AND OPPORTUNITIES	Page 72
VIII. CONCLUSION	Page 73
Chapter 3: Incentives and Oversight	
I. Introduction	Page 74
II. REGULATORY OVERSIGHT	Page 74
III. VALUE-BASED PURCHASING FINANCIAL INCENTIVES	Page 78
Table 6. Payments Based on Medicare Severity Diagnosis Related Group	
Assignment and Present on Admission Status	Page 89
IV. Transparency and Associated Incentives	Page 94
V. RELATED INITIATIVES ADDRESSING HAIS	Page 99
VI. CONCLUSION	Page 108
Chapter 4: Outreach and Messaging	
I. Introduction	Page 110
II. Goals	Page 111
III. TARGET AUDIENCE	Page 112
Table 7. HAI Target Audiences and Key Messages, Tactics, and	
Materials/Products	Page 113
IV. PARTNERSHIP DEVELOPMENT	Page 120
V. EVALUATION	Page 120
VI. ACTIVITIES OF PARTICIPATING HHS OPERATING AND STAFF DIVISIONS	
AND OTHER FEDERAL AGENCIES	Page 121
VII. CONCLUSION	Page 126
PART 4: PHASE TWO – OUTPATIENT SETTINGS AND INFLUENZA VACCINATION OF HEALTH CARE PERSONNEL	
Chapter 5: Ambulatory Surgical Centers I. Introduction	Page 127
II. BACKGROUND	Page 127
Table 8. Infection Control Lapses Identified during Three-State	1 480 127
Pilot Activity	Page 129
III. Progress Made	Page 130
IV. REMAINING NEEDS AND PREVENTION OPPORTUNITIES	Page 133
V. NEXT STEPS: COLLABORATIONS FOR SHARED SOLUTIONS	Page 136
VI. Conclusion	Page 141
Chapter 6: End-Stage Renal Disease Facilities	
I. Introduction	Page 142
II. BACKGROUND	Page 142
III. HEALTH CARE-ASSOCIATED INFECTIONS IN ESRD	Page 144

IV. RECOMMENDATIONS FOR PREVENTION PRIORITIES IN	
ESRD FACILITIES	Page 148
V. METRICS AND EVALUATION	Page 154
Table 9. Five-Year National Metrics and Evaluation Targets	Page 155
VI. INCENTIVES AND CHALLENGES	Page 159
VII. INFORMATION SYSTEMS AND TECHNOLOGY	Page 163
VIII. FUTURE DIRECTIONS	Page 164
IX. SUMMARY OF RECOMMENDATIONS	Page 168
X. CONCLUSION	Page 170
Table 10. HHS Ongoing Collaborative Projects Related to Reducing	C
HAIs in ESRD Facilities	Page 171
Chapter 7: Influenza Vaccination of Health Care Personnel	
I. Introduction	Page 174
Figure 2. Estimated Influenza Vaccination (Trivalent) Coverage,	
Health Care Personnel	Page 175
II. Background	Page 176
III. Addressing HCP Vaccination Rates	Page 181
IV. MEASUREMENT OF INFLUENZA VACCINATION AMONG HCP	Page 185
V. NEXT STEPS: COLLABORATIONS FOR SHARED SOLUTIONS	Page 186
VI. WORKING GROUP PROJECTS	Page 190
VII. RESEARCH GAPS	Page 191
VIII. CHALLENGES AND OPPORTUNITIES	Page 192
PART 5: PHASE THREE – LONG-TERM CARE FACILITIES	
Chapter 8: Long-Term Care Facilities	
I. Introduction	Page 194
II. DESCRIPTIONS OF LONG-TERM CARE SETTINGS	Page 196
III. STATUS OF HAIS AND INFECTION CONTROL IN LONG-TERM CARE	Page 199
IV. HHS Data Sources and Projects on Reducing and Preventing	
HAIs in LTCFs	Page 206
V. METRICS AND EVALUATION	Page 210
VI. PROMISING PRACTICES IN INFECTION CONTROL IN LTCFS	Page 216
VII. FEDERAL REGULATORY OVERSIGHT AND PERFORMANCE INCENTIVE	D
PROGRAMS IN NHS/SNFS	Page 220
VIII. COMMUNICATIONS AND OUTREACH TO THE LONG-TERM CARE	D 000
COMMUNITY	Page 223
IX. NEXT STEPS AND FUTURE DIRECTIONS	Page 224
Table 11. Summary of Recommendations	Page 225
Appendix A. Settings of Long-Term Care	Page 227
Appendix B. Current HHS Projects and Programs for Reporting of	D 220
Health Care-Associated Infections in the Long-Term Care Setting Appendix C. Examples of CDC-Supported State HAI Prevention	Page 229
Activities Engaging LTCFs	Page 230

National Action Plan to Prevent Health Care-Associated Infections: Road Map to Elimination April 2013

Appendix D-1. Existing Communication Outlets and Identified Target Audiences Appendix D-2. Health Care Safety and Quality Campaigns	Page 231 Page 237
PART 6: CONCLUSION	
Chapter 9: Conclusion I. Coordination of Efforts II. Conclusion	Page 240 Page 241

NATIONAL ACTION PLAN TO PREVENT HEALTH CARE-ASSOCIATED INFECTIONS: ROAD MAP TO ELIMINATION APRIL 2013

KEY ACRONYMS

ACO: Accountable care organization **AO:** Accreditation Organization

ARRA: American Recovery and Reinvestment Act of 2009

ASCs: Ambulatory Surgical Centers

CAUTI: Catheter-associated urinary tract infection

CDI: Clostridium difficile infections

CLABSI: Central-line associated bloodstream infections

CfC: Conditions for Coverage **CoP:** Condition of Participation

CUSP: Comprehensive Unit-based Safety

Program

EHR: Electronic health record **ESRD:** End-Stage Renal Disease

FHISE: Federal Health Information Sharing

Environment

HAC-POA: Hospital-Acquired Conditions-

Present on Admission

HAI: Health care-associated infections

HCP: Health Care Personnel

HICPAC: Health Care Infection Control

Practices Advisory Committee

HITECH: Health Information Technology for Economic and Clinical Health

HVBP: Hospital Value-based Purchasing (also

ICU: Intensive care unit

ICWS: Infection Control Worksheet

IPPS: Inpatient Prospective Payment System

IT: Information Technology LTCFs: Long-term care facilities

MDR: Multi-drug resistant

MRSA: Methicillin-resistant Staphylococcus

aureus

VBP)

NHSN: National Healthcare Safety Network NwHIN: Nationwide Health Information

Network

PSO: Patient Safety Organization

QIO: Quality Improvement Organization **SCIP:** Surgical Care Improvement Project

SSA: State Survey Agencies SSI: Surgical site infections UTI: Urinary tract infection

VAE: Ventilator-associated event

VAP: Ventilator-associated pneumonia

VBP: Value-based purchasing

Acronyms for Federal Departments and Agencies

AHRQ: Agency for Healthcare Research and Quality

ACL: Administration for Community Living

CDC: Centers for Disease Control and Prevention

CMS: Centers for Medicare & Medicaid Services

DOD: U.S. Department of Defense

FDA: Food and Drug Administration

GAO: Government Accountability Office

HHS: U.S. Department of Health & Human

Services

HRSA: Health Resources and Services

Administration

IHS: Indian Health Service

NIH: National Institutes of Health **OS:** HHS Office of the Secretary

ASPE: Office of the Assistant Secretary for Planning and Evaluation

OASH: Office of the Assistant Secretary for Health

NVPO: National Vaccine Program Office **ODPHP:** Office of Disease Prevention and Health Promotion

ONC: Office of the National Coordinator for Health Information TechnologyVA: U.S. Department of Veterans Affairs

I am pleased to share the *National Action Plan to Prevent Health Care-Associated Infections: Road Map to Elimination* (HAI Action Plan). Health care-associated infections (HAI) are a serious national health issue. At any given time, one in 20 hospitalized patients has an HAI, and more than one million HAIs occur every year, costing the U.S. health care system billions of dollars. The Department of Health & Human Services (HHS) encourages HAI reductions by engaging public and private sector stakeholders.

The HAI Action Plan reflects a significant update and expansion from the initial version issued in 2009. It includes new sections specific to infection reduction in ambulatory surgical centers, end-stage renal disease facilities, and long-term care facilities, as well as a section on increasing influenza vaccination of health care personnel. The HAI Action Plan reflects the work of many offices across HHS and the Departments of Defense and Veterans Affairs. The plan also reflects input from national experts and stakeholder organizations.

Achieving the highest quality health care at an affordable cost is a complex endeavor. It requires providers, health care organizations, governments, the public health community, patients, and their loved ones to collaborate and support each other's actions to realize our shared mission of being the healthiest society we can be. Patients across the nation depend on our efforts to prevent and eventually eliminate HAIs.

The HAI Action Plan is critical to our overall mission to strengthen health systems by improving health-care quality and patient safety. Recently, we have seen significant investments in the essential strategies and infrastructure needed to reduce the HAI burden. My vision is to contribute to an even stronger, healthier, and more prosperous America for years to come. The *National Action Plan to Prevent Health Care-Associated Infections: Road Map to Elimination* will help to achieve that vision.

Sincerely,

/Kathleen Sebelius/

Kathleen Sebelius