

# Contents

<b>Foreword</b> .....	<b>iii</b>
<b>List of Acronyms</b> .....	<b>viii</b>
<b>Executive Summary</b> .....	<b>1</b>
<b>Introduction</b> .....	<b>4</b>
Adverse Drug Events: Magnitude of the Problem.....	5
Federal Interagency Steering Committee and Workgroups for ADEs.....	10
References .....	13
<b>Section 1. National ADE Action Plan Scope and Development</b> .....	<b>16</b>
Scope of the National Action Plan for ADE Prevention .....	16
Framework for the National Action Plan for ADE Prevention .....	17
Development Process for the National Action Plan for ADE Prevention .....	18
References .....	21
<b>Section 2. Surveillance Resources</b> .....	<b>23</b>
Considerations for Choosing Surveillance Data Sources and Metrics.....	23
Federal Systems That Conduct ADE Surveillance .....	26
Future Considerations for Optimizing Federal ADE Surveillance Efforts .....	30
References .....	31
<b>Section 3. Prevention Approaches</b> .....	<b>33</b>
Key Determinants of Preventable ADEs .....	33
Affordable Care Act—Health Care Delivery Models .....	35
References .....	36
<b>Section 4. Incentives and Oversight Opportunities</b> .....	<b>37</b>
Regulatory Oversight .....	37
Value-Based Purchasing Financial Incentives.....	39
Transparency and Associated Incentives .....	45
Related Initiatives Addressing ADEs .....	45
<b>Section 5. Anticoagulants</b> .....	<b>50</b>
Magnitude of the Problem .....	50
Surveillance .....	55
Evidence-Based Prevention Tools .....	58
Incentives and Oversight .....	74

Health Information Technology (Health IT).....	80
Research (Unanswered Questions) .....	84
References.....	88
<b>Section 6. Diabetes Agents .....</b>	<b>99</b>
Magnitude of the Problem .....	99
Surveillance .....	102
Evidence-Based Prevention Tools .....	105
Incentives and Oversight .....	116
Health Information Technology (Health IT).....	119
Research (Unanswered Questions) .....	122
References.....	124
<b>Section 7. Opioids .....</b>	<b>131</b>
Magnitude of the Problem .....	131
Surveillance .....	134
Evidence-Based Prevention Tools .....	138
Incentives and Oversight .....	148
Health Information Technology (Health IT).....	150
Research (Unanswered Questions) .....	152
References.....	154
<b>Conclusions and Next Steps.....</b>	<b>157</b>
<b>Appendix A. Key Partnerships in Development of the National ADE Action Plan .....</b>	<b>160</b>
<b>Appendix B. Overview of Federal Systems That Conduct ADE Surveillance.....</b>	<b>162</b>
<b>Appendix C. Affordable Care Act Health Care Delivery Models Relevant to ADE Prevention .....</b>	<b>168</b>
<b>Appendix D. Overview of CMS Programs/Initiatives With Potential To Advance ADE Prevention .....</b>	<b>170</b>

## Figures

Figure 1. Terms Relevant to Drug-Related Harm.....	5
Figure 2. Hospital Stays Complicated by Adverse Drug Events, Distribution by Age.....	8
Figure 3. Rate of Ambulatory Visits for Adverse Drug Events, Distribution by Age.....	8
Figure 4. Organizational Structure of the Federal Interagency Steering Committee and Workgroups for Adverse Drug Events .....	12
Figure 5. Strengths and Limitations of Federal Systems That Conduct ADE Surveillance .....	29
Figure 6. Fishbone Diagram: Select Determinants of Preventable Adverse Drug Events.....	34