

REVIEWS OF
RESEARCH PROGRAMS OF
THE NATIONAL INSTITUTE
FOR OCCUPATIONAL
SAFETY AND HEALTH

Respiratory Diseases Research at NIOSH



NATIONAL RESEARCH COUNCIL AND
INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Contents

| | |
|---|-----------|
| SUMMARY | 1 |
| 1 INTRODUCTION | 15 |
| Overview of the Respiratory Diseases Research Program, 18 | |
| Study Charge and Evaluation Committee, 27 | |
| Evaluation Approach, 28 | |
| Organization of the Report, 32 | |
| 2 EVALUATION OF THE RESPIRATORY DISEASES RESEARCH PROGRAM | 34 |
| RDRP Goals, Subgoals, and Resources, 35 | |
| External Factors Affecting the RDRP, 35 | |
| Surveillance, Health Hazard Evaluation and Technical Assistance Program, and Other Input Activities, 39 | |
| Introduction to Relevance and Impacts Assessment, 42 | |
| Strategic Goal 1: Prevent and Reduce Work-Related Airway Diseases, 43 | |
| Strategic Goal 2: Prevent and Reduce Interstitial Lung Diseases, 59 | |
| Strategic Goal 3: Prevent and Reduce Work-Related Infectious Respiratory Diseases, 81 | |
| Strategic Goal 4: Prevent and Reduce Work-Related Respiratory Malignancies, 97 | |

Strategic Goal 5: Prevent Respiratory and Other Diseases Potentially
Resulting from Occupational Exposures to Nanomaterials, 109
Overall Assessment of the RDRP Relevance and Impacts, 117

3 EMERGING RESEARCH AND RESEARCH ISSUES 120

Strategic Goal 1: Prevent and Reduce Work-Related Airways
Diseases, 120
Strategic Goal 2: Prevent and Reduce Work-Related Interstitial Lung
Diseases, 122
Strategic Goal 3: Prevent and Reduce Work-Related Infectious
Respiratory Diseases, 125
Strategic Goal 4: Prevent and Reduce Work-Related Respiratory
Malignancies, 127
Strategic Goal 5: Prevent Respiratory and Other Diseases Potentially
Resulting from Occupational Exposures to Nanomaterials, 128
Cross-Cutting Issues: Continuing and Emerging Issues Cutting Across
Multiple Program Goals, 129

4 RECOMMENDATIONS 132

Strategic Goal 1: Prevent and Reduce Work-Related Airway Diseases, 132
Strategic Goal 2: Prevent and Reduce Work-Related Interstitial Lung
Diseases, 139
Strategic Goal 3: Prevent and Reduce Work-Related Infectious
Respiratory Diseases, 141
Strategic Goal 4: Prevent and Reduce Work-Related Respiratory
Malignancies, 143
Strategic Goal 5: Prevent Respiratory and Other Diseases Potentially
Resulting from Occupational Exposures to Nanomaterials, 144
Cross-Cutting Issues, 145
Broader Programmatic Goals, 149

REFERENCES 150

APPENDIXES

| | | |
|---|---|-----|
| A | Framework for the Review of Research Programs of the National Institute for Occupational Safety and Health | 173 |
| B | Stakeholder Responses: Online Survey | 217 |
| C | Bibliographic Information for the Committee to Review the NIOSH Respiratory Diseases Research Program | 223 |
| D | Biographic Information on the Committee to Review the NIOSH Respiratory Diseases Research Program | 226 |