

LABORATORY BIOSAFETY MANUAL
FOURTH EDITION
AND
ASSOCIATED MONOGRAPHS

BIOSAFETY PROGRAMME MANAGEMENT



**World Health
Organization**

LABORATORY BIOSAFETY MANUAL
FOURTH EDITION
AND
ASSOCIATED MONOGRAPHS

BIOSAFETY PROGRAMME MANAGEMENT



**World Health
Organization**

Biosafety programme management

(Laboratory biosafety manual, fourth edition and associated monographs)

ISBN 978-92-4-001143-4 (electronic version)

ISBN 978-92-4-001144-1 (print version)

© World Health Organization 2020

Some rights reserved. This work is available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; <https://creativecommons.org/licenses/by-nc-sa/3.0/igo>).

Under the terms of this licence, you may copy, redistribute and adapt the work for non-commercial purposes, provided the work is appropriately cited, as indicated below. In any use of this work, there should be no suggestion that WHO endorses any specific organization, products or services. The use of the WHO logo is not permitted. If you adapt the work, then you must license your work under the same or equivalent Creative Commons licence. If you create a translation of this work, you should add the following disclaimer along with the suggested citation: "This translation was not created by the World Health Organization (WHO). WHO is not responsible for the content or accuracy of this translation. The original English edition shall be the binding and authentic edition".

Any mediation relating to disputes arising under the licence shall be conducted in accordance with the mediation rules of the World Intellectual Property Organization (<http://www.wipo.int/amc/en/mediation/rules/>).

Suggested citation. Biosafety programme management. Geneva: World Health Organization; 2020 (Laboratory biosafety manual, fourth edition and associated monographs). Licence: [CC BY-NC-SA 3.0 IGO](#).

Cataloguing-in-Publication (CIP) data. CIP data are available at <http://apps.who.int/iris>.

Sales, rights and licensing. To purchase WHO publications, see <http://apps.who.int/bookorders>. To submit requests for commercial use and queries on rights and licensing, see <http://www.who.int/about/licensing>.

Third-party materials. If you wish to reuse material from this work that is attributed to a third party, such as tables, figures or images, it is your responsibility to determine whether permission is needed for that reuse and to obtain permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

General disclaimers. The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by WHO in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by WHO to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall WHO be liable for damages arising from its use.

Design and layout by Paul Bloxham

Contents

Acknowledgements	v
Glossary of terms	vii
Executive summary	xii
SECTION 1 Introduction	1
SECTION 2 Biosafety programme management cycle	3
SECTION 3 Establishing a strong biosafety culture	5
3.1 Demonstrated commitment of senior management	5
3.2 Demonstrated commitment to biosafety throughout the organization	5
3.3 Active engagement of laboratory personnel and support personnel	6
3.4 Ongoing communication and promotion of biosafety	6
SECTION 4 Roles and responsibilities	7
4.1 Senior management	7
4.2 Biosafety committee	8
4.3 Biosafety officer	8
4.4 Laboratory personnel	9
4.5 Support personnel	10
SECTION 5 Developing a biosafety programme	11
5.1 Foundational elements of a biosafety programme	11
5.2 Biosafety programme management in different types of facilities	21
References	24
Further information	25

ANNEX 1. Pathogen safety data sheet template	27
ANNEX 2. Biosafety risk assessment template	37
ANNEX 3. Biosecurity risk assessment template	39
ANNEX 4. Biosafety manual template	43
ANNEX 5. Biosecurity plan template	49
ANNEX 6. Occupational health and safety programme template	53
ANNEX 7. Emergency response template	57
ANNEX 8. Incident reporting form and investigation report	65
ANNEX 9. Inventory template	71
ANNEX 10. Self-inspection checklist template	73

Acknowledgements

Principal coordinator

Dr Kazunobu Kojima, World Health Organization, Switzerland

Scientific contributors

Ms Kyna Caminiti, Public Health Agency of Canada (WHO Collaborating Centre for Biosafety and Biosecurity), Canada

Dr David Dance, Lao-Oxford-Mahosot Hospital-Wellcome Trust Research Unit, Lao People's Democratic Republic

Dr Dan Dragon, University of Alberta, Canada

Dr Noura Ghariani, Ministry of Health, Tunisia

Ms Marianne Heisz (Team lead), Public Health Agency of Canada (WHO Collaborating Centre for Biosafety and Biosecurity), Canada

Ms Michelle McKinney (Deputy team lead), Centers for Disease Control and Prevention (WHO Collaborating Centre for Biosafety and Biosecurity), and National Institutes of Health (NIH), United States of America

Ms Catherine Robertson, Public Health Agency of Canada (WHO Collaborating Centre for Biosafety and Biosecurity), Canada

Ms Amanda Starr, Public Health Agency of Canada (WHO Collaborating Centre for Biosafety and Biosecurity), Canada

Dr Toni Whistler, Centers for Disease Control and Prevention (WHO Collaborating Centre for Biosafety and Biosecurity), United States of America

Project management

Ms Lisa Stevens, World Health Organization, France

Ms Rica Zinsky, World Health Organization, Switzerland

Reviewers

Dr Christina Carlson, World Health Organization, Switzerland and Centers for Disease Control and Prevention (WHO Collaborating Centre for Biosafety and Biosecurity), United States of America

Dr José Alberto Díaz-Quinoñez, Instituto de Diagnóstico y Referencia Epidemiológicos (WHO Collaborating Center on Laboratory Biosafety), Mexico

Technical editing

Ms Fiona Curlet

Financial support

Development and publication of this document have been made possible with financial support from the Global Partnership Program, Global Affairs Canada and the Biosecurity Engagement Program, United States Department of State and the Defense Threat Reduction Agency, US Department of Defense.

预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_24182

