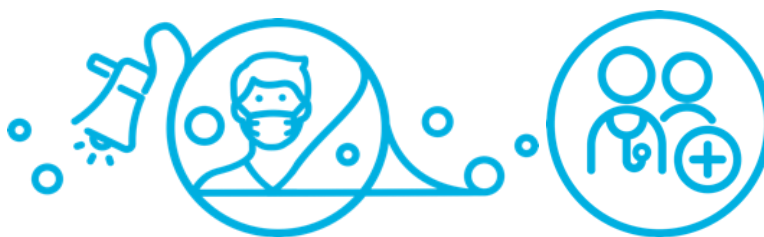




***Resource materials for in-country
development and implementation of
national action plans to address
antimicrobial resistance***



October 2022



**World Health
Organization**



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What's new in the AMR Resource Pack 2022 update

| Section | New resources |
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| General | <p>Lancet publication: Global burden of bacterial antimicrobial resistance in 2019: a systematic analysis. Antimicrobial Resistance Collaborators, January 19, 2022.</p> <ul style="list-style-type: none"> • Full report here: https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)02724-0/fulltext • Animation: https://www.youtube.com/watch?v=xvY_QrroYZM • Social media graphics: https://cloud.ihme.washington.edu/s/6M2fNj3raArEFMX • GRAM report launch video. https://vimeo.com/675487510 <p>Financing to Address Antimicrobial Resistance - Information note of the Global Leaders Group on Antimicrobial Resistance https://www.amrleaders.org/resources/m/item/financing-to-address-antimicrobial-resistance</p> <p>Antimicrobial Resistance, Fueled by the COVID-19 Pandemic. Policy Brief November 2021 (ENG, SPA, POR) https://iris.paho.org/handle/10665.2/55864</p> |
| Surveillance | <ul style="list-style-type: none"> • Méthodologie GLASS pour la surveillance de la consommation des antimicrobiens au niveau national. Organisation mondiale de la Santé. https://apps.who.int/iris/handle/10665/342115 • GLASS guide for national surveillance systems for monitoring antimicrobial consumption in hospitals in Russian https://apps.who.int/iris/bitstream/handle/10665/336182/9789240037342-rus.pdf • Portuguese https://apps.who.int/iris/bitstream/handle/10665/336182/9789240041561-por.pdf • Antimicrobial consumption in the EU/EEA (ESAC-Net) Annual Epidemiological Report for 2020 https://www.ecdc.europa.eu/sites/default/files/documents/ESAC-Net%20AER-2020-Antimicrobial-consumption-in-the-EU-EEA.pdf • Antimicrobial Resistance in the WHO African Region: a systematic literature review https://apps.who.int/iris/handle/10665/349223 • Antimicrobial resistance surveillance in Europe 2022 – 2020 data https://www.euro.who.int/en/health-topics/disease-prevention/antimicrobial-resistance/publications/2022/antimicrobial-resistance-surveillance-in-europe-2022-2020-data-2022 • Surveillance of Antimicrobial Resistance and Use - Information note of the Global Leaders Group on Antimicrobial Resistance https://www.amrleaders.org/resources/m/item/surveillance-of-antimicrobial-resistance-and-use |
| AMR national action plan resources | <ul style="list-style-type: none"> • WHO costing and budgeting tool for national action plans on antimicrobial resistance https://www.who.int/teams/surveillance-prevention-control-AMR/who-amr-costing-and-budgeting-tool EN, FR, SP • eLearning course https://openwho.org/courses/AMR-NAP-costing-tool • Burkina Faso national action plan on antimicrobial resistance: review of progress in the human health sector https://www.who.int/publications/i/item/9789240040410 EN, FR • WHO implementation handbook for national action plans on antimicrobial resistance: guidance for the human health sector https://www.who.int/publications/i/item/9789240041981 EN, FR, RU, SP |

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| | <p>eLearning course: https://openwho.org/courses/AMR-NAP-6steps-for-implementation</p> <ul style="list-style-type: none"> Infographic: 6 steps for sustainable implementation of national action plans on antimicrobial resistance. https://www.who.int/multi-media/details/6-steps-for-sustainable-implementation-of-national-action-plans-on-antimicrobial-resistance AR, CH, EN, FR, RU, SP |
| Education, awareness & behaviour change | <ul style="list-style-type: none"> World Antimicrobial Awareness week (WAAW) 2022 campaign materials https://www.who.int/campaigns/world-antimicrobial-awareness-week/2022 Handbook for Communication on the Rational Use of Antimicrobials for the Containment of Resistance (ENG, SPA) https://iris.paho.org/handle/10665.2/54995 OpenWHO AMR channel https://openwho.org/channels/amr. Online course: Reducing AMR of curable Sexually Transmitted Infections (STIs) in Antenatal Care (ANC) settings https://openwho.org/courses/amr-sti-anc Online course: Antimicrobial stewardship programmes in health-care facilities in low- and middle-income countries: a WHO practical toolkit https://openwho.org/courses/practical-toolkit-for-AMS Online course: WHO Policy Guidance on Integrated Antimicrobial Stewardship Activities https://openwho.org/courses/policy-guidance-on-AMS Open WHO AMS course Antimicrobial Stewardship: A competency-based approach EN, RU, FR, IT, SP, MKD https://openwho.org/courses/AMR-competency |
| Infection prevention and control | <ul style="list-style-type: none"> Strengthening infection prevention and control in primary care: A collection of existing standards, measurement and implementation resources https://www.who.int/publications/i/item/9789240035249 WHO Framework and toolkit for infection prevention and control in outbreak preparedness, readiness and response at the health care facility level. https://www.who.int/publications/i/item/framework-and-toolkit-for-infection-prevention-and-control-in-outbreak-preparedness-readiness-and-response-at-the-health-care-facility-level Responding to Outbreaks of Antimicrobial-resistant Pathogens in Health-care Facilities: Guidance for the Western Pacific Region https://apps.who.int/iris/handle/10665/363498 Online course: Surgical site infections. https://openwho.org/courses/IPC-SSI-EN Transforming the care of babies with sepsis. GARDP https://gardp.org/uploads/2022/04/GARDP-Neonatal-sepsis-study-results-2022.pdf |
| Water, sanitation & hygiene | <ul style="list-style-type: none"> WASH FIT: A practical guide for improving quality of care through water, sanitation and hygiene in health care facilities. Second edition https://www.who.int/publications/i/item/9789240043237 WASH FIT portal WASH in Health Care Facilities (washinhcf.org) WHO/UNICEF WASH FIT Training Manual https://www.who.int/publications/i/item/9789240047730 WHO/UNICEF country tracker: progress on WASH in healthcare facilities. https://washinhcf.org/country-progress-tracker/#country-progress-tracker Drinking-water, sanitation and hygiene in the WHO European Region: highlights and progress towards achieving Sustainable Development Goal 6 (2022) https://washdata.org/report/who-2022-regional-highlights-euro Progress on WASH in health care facilities 2000-2021: Special focus on WASH and infection prevention and control (IPC) https://www.who.int/publications/i/item/progress-on-wash-in-health-care-facilities-2000-2021--special-focus-on-wash-and-infection-prevention-and-control-ipc |

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| AMR & essential medicines and products | <ul style="list-style-type: none"> World Health Organization model list of essential medicines: 22nd list (2021) https://apps.who.int/iris/bitstream/handle/10665/345533/WHO-MHP-HPS-EML-2021.02-eng.pdf World Health Organization model list of essential medicines for children: 8th list (2021) https://apps.who.int/iris/bitstream/handle/10665/345534/WHO-MHP-HPS-EML-2021.03-eng.pdf World Health Organization 2021 Antibacterial agents in clinical development and preclinical: an overview and analysis. https://www.who.int/publications/i/item/9789240047655 |
| Immunization | <ul style="list-style-type: none"> Bacterial vaccines in clinical and preclinical development 2021. https://www.who.int/publications/i/item/9789240052451 Immunization Agenda 2030. https://www.immunizationagenda2030.org/ WHO Immunization dashboard. https://immunizationdata.who.int/ Malaria vaccine: WHO position paper – March 2022. https://www.who.int/publications/i/item/who-wer9709-61%E2%80%939380 Rotavirus vaccines: WHO position paper - July 2021. https://www.who.int/publications/i/item/WHO-WER9628 |
| Antimicrobial stewardship | <ul style="list-style-type: none"> WHO Policy Guidance on Integrated Antimicrobial Stewardship Activities. https://openwho.org/courses/policy-guidance-on-AMS WHO practical toolkit for antimicrobial stewardship programmes in health-care facilities in low- and middle-income countries. https://openwho.org/courses/practical-toolkit-for-AMS Virtual Antimicrobial Stewardship Escape Room Game https://www.biomerieux.com Antimicrobial stewardship interventions: a practical guide. WHO Regional Office for Europe 2021 https://apps.who.int/iris/handle/10665/340709 EN, RU, POL, GEO, TUR, SP, CRO, FR Open WHO AMS course Antimicrobial Stewardship: A competency-based approach EN, RU, FR, IT, SP, MKD https://openwho.org/courses/AMR-competency |
| Monitoring | <ul style="list-style-type: none"> Tracking Antimicrobial Resistance Country Self-assessment Survey (TrACSS) 2021 https://amrcountryprogress.org/ TrACSS 2021 Country Profiles https://www.who.int/teams/surveillance-prevention-control-AMR/national-action-plan-monitoring-evaluation/tracss-2021-country-profiles |
| One Health | <ul style="list-style-type: none"> Guidelines on Integrated Monitoring and Surveillance of Foodborne antimicrobial resistance (2022) https://www.fao.org/3/cb8554en/cb8554en.pdf Strategic framework for collaboration on antimicrobial resistance. Together for One Health https://www.who.int/publications/i/item/9789240045408 Antimicrobial Resistance Multi-Partner Trust Fund annual report 2021 https://www.who.int/publications/i/item/9789240051362 Antimicrobial resistance and the United Nations sustainable development cooperation framework: guidance for United Nations country teams https://www.who.int/publications/i/item/9789240036024 |
| Environment | <ul style="list-style-type: none"> Summary for Policymakers - Environmental dimensions of antimicrobial resistance https://www.unep.org/resources/report/summary-policymakers-environmental-dimensions-antimicrobial-resistance Antimicrobial Resistance in the Environment Webinar Series https://www.unep.org/events/webinar/antimicrobial-resistance-environment-webinar-series |

| | |
|-----------------------------------|---|
| | <ul style="list-style-type: none"> • Call to action by the Global Leaders Group on Antimicrobial Resistance on reducing antimicrobial discharges from food systems, manufacturing facilities and human health systems into the environment https://www.amrleaders.org/resources/m/item/reducing-antimicrobial-discharges-from-food-systems-manufacturing-facilities-and-human-health-systems-into-the-environment |
| PHC | <ul style="list-style-type: none"> • EVIPNet evidence brief for policy: tackling antimicrobial resistance in primary health care through promoting the appropriate use of antibiotics in Estonia https://apps.who.int/iris/handle/10665/351528 • Preventing antimicrobial resistance and promoting appropriate antimicrobial use in inpatient health care in Greece https://apps.who.int/iris/handle/10665/361842 |
| Other useful AMR resources | <ul style="list-style-type: none"> • CDC 2022 Special Report Covid-19 U.S. Impact on Antimicrobial Resistance https://www.cdc.gov/drugresistance/pdf/covid19-impact-report-508.pdf • WHO HIV drug resistance report 2021 https://www.who.int/publications/i/item/9789240038608 |

Acknowledgements: We gratefully acknowledge the contributions of WHO headquarters technical teams and WHO regional AMR focal points.

1. General AMR resources

- Global action plan on antimicrobial resistance <https://www.who.int/publications/i/item/9789241509763>
- Lancet publication: Global burden of bacterial antimicrobial resistance in 2019: a systematic analysis. Antimicrobial Resistance Collaborators, January 19, 2022.
 - ❖ Full report here: [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)02724-0/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)02724-0/fulltext)
 - ❖ Animation: https://www.youtube.com/watch?v=xyv_QrroYZM
Social media graphics: <https://cloud.ihme.washington.edu/s/6M2fNj3raArEFMX>
 - ❖ GRAM report launch video. <https://vimeo.com/675487510>
- Follow-up to the political declaration of the high-level meeting of the General Assembly on antimicrobial resistance. Report of the Secretary-General. May 2019 (Also in Arabic, Chinese, Russian, Spanish). <https://undocs.org/en/A/73/869>
- No time to wait: Securing the future from drug-resistant infections. IACG report to the Secretary-General of the United Nations. April 2019 (Arabic, Chinese, Russian, Spanish). <https://www.who.int/publications/i/item/no-time-to-wait-securing-the-future-from-drug-resistant-infections>
- WHO antimicrobial resistance webpage (also in Arabic, Chinese, French, Russian & Spanish) <https://www.who.int/health-topics/antimicrobial-resistance>
- World Bank 2019. Pulling Together to Beat Superbugs: Knowledge and Implementation Gaps in Addressing Antimicrobial Resistance. World Bank, Washington, DC. © World Bank. <https://openknowledge.worldbank.org/handle/10986/32552>
- Financing to Address Antimicrobial Resistance - Information note of the Global Leaders Group on Antimicrobial Resistance <https://www.amrleaders.org/resources/m/item/financing-to-address-antimicrobial-resistance>
- Antimicrobial Resistance, Fueled by the COVID-19 Pandemic. Policy Brief November 2021 (ENG, SPA, POR) <https://iris.paho.org/handle/10665.2/55864>

2. AMR National action plan resources

- Antimicrobial resistance: A manual for developing national action plans <https://www.who.int/publications/i/item/antimicrobial-resistance-a-manual-for-developing-national-action-plans>
- WHO implementation handbook for national action plans on antimicrobial resistance: guidance for the human health sector. EN, FR, RU, SP. <https://www.who.int/publications/i/item/9789240041981>
 - eLearning course: <https://openwho.org/courses/AMR-NAP-6steps-for-implementation>
- Infographic : 6 steps for sustainable implementation of national action plans on antimicrobial resistance. <https://www.who.int/multi-media/details/6-steps-for-sustainable-implementation-of-national-action-plans-on-antimicrobial-resistance>
- WHO costing and budgeting tool for national action plans on antimicrobial resistance
 - <https://www.who.int/teams/surveillance-prevention-control-AMR/who-amr-costing-and-budgeting-tool> EN, FR, SP
 - eLearning course <https://openwho.org/courses/AMR-NAP-costing-tool>

- Burkina Faso national action plan on antimicrobial resistance: review of progress in the human health sector. EN, FR <https://www.who.int/publications/i/item/9789240040410>
- Malawi national action plan on antimicrobial resistance: review of progress in the human health sector. <https://www.who.int/publications/i/item/9789240056848>
- AMR National Action Plan Support Tools <https://www.who.int/activities/supporting-countries-with-national-action-plan-implementation>
- Library of national action plans: <https://www.who.int/teams/surveillance-prevention-control-AMR/national-action-plan-monitoring-evaluation/library-of-national-action-plans>
- Tackling Antimicrobial Resistance Together. Working paper 1.0: Multisectoral coordination <https://www.who.int/publications/i/item/tackling-antimicrobial-resistance-together-working-paper-1.0-multisectoral-coordination>
- Turning plans into action for antimicrobial resistance (AMR). Working Paper 2.0: Implementation and coordination <https://apps.who.int/iris/handle/10665/311386>
- Thematic brief: Multisectoral action to tackle AMR <https://apps.who.int/iris/handle/10665/346539>
- Tackling antimicrobial resistance (AMR) together. Working Paper 5.0: Enhancing the focus on gender and equity <https://apps.who.int/iris/handle/10665/336977>

3. Health workforce AMR education resources

- OpenWHO: New Antimicrobial Resistance channel [Antimicrobial Resistance \(openwho.org\)](https://openwho.org/)
- Online course: Reducing AMR of curable Sexually Transmitted Infections (STIs) in Antenatal Care (ANC) settings <https://openwho.org/courses/amr-sti-anc>
- Online course: Surgical site infections. <https://openwho.org/courses/IPC-SSI-EN>
- Online course: WHO Policy Guidance on Integrated Antimicrobial Stewardship Activities. <https://openwho.org/courses/policy-guidance-on-AMS>
- Online course: WHO practical toolkit for antimicrobial stewardship programmes in health-care facilities in low- and middle-income countries. <https://openwho.org/courses/practical-toolkit-for-AMS>
- Health workers' education and training on antimicrobial resistance: curricula guide. WHO & Public Health England 2019. <https://apps.who.int/iris/bitstream/handle/10665/329380/9789241516358-eng.pdf>
- WHO competency framework for health workers' education and training on antimicrobial resistance. Geneva: World Health Organization; 2018. <http://apps.who.int/iris/bitstream/handle/10665/272766/WHO-HIS-HWF-AMR-2018.1-eng.pdf?ua=1>

- WHO EURO Antimicrobial Stewardship: A competency-based approach Open Online Course (English, French, Italian, Macedonian, Russian & Spanish). <https://openwho.org/courses/AMR-competency>
- Antimicrobial stewardship interventions: a practical guide. WHO Regional Office for Europe 2021, EN,RU, POL, GEO, TUR, SP. CRO, FR <https://apps.who.int/iris/bitstream/handle/10665/340709/9789289054980-eng.pdf>

4. Awareness, communications and behaviour change

- Materials for WAAW 2022 <https://www.who.int/campaigns/world-antimicrobial-awareness-week/2022>
- WAAW materials (for GPs and leaflet) EN, RU <https://who.canto.global/v/LI33QQ5N04/album/SO8B9?viewIndex=0>
- The TAP manual: an in-depth guide for planning and implementing tailoring antimicrobial resistance programmes <https://apps.who.int/iris/handle/10665/363136>
- Tailoring Antimicrobial Resistance programmes (TAP) Quick Guide <https://apps.who.int/iris/handle/10665/341631> , EN, SP, GRE, FR, RUS, GER
 - Spanish: <https://iris.paho.org/handle/10665.2/55628>
- Tailoring Antimicrobial Resistance programmes (TAP) Toolbox <https://apps.who.int/iris/handle/10665/341632> EN, RUS, GRE, GER, FR , SP
 - SPANISH: <https://iris.paho.org/handle/10665.2/55629>
- Tailoring Antimicrobial Resistance programmes (TAP) Process Poster <https://who.canto.global/v/I6NL4P77JP/album/IB2K9?viewIndex=0> EN, RU, GRE, GER, FR
- El proceso de adaptacion de intervenciones a medida contra la resistencia a los antimicrobianos
 - <https://iris.paho.org/handle/10665.2/55627>
- Handbook for Communication on the Rational Use of Antimicrobials for the Containment of Resistance (ENG, SP) <https://iris.paho.org/handle/10665.2/54995>
- Infographic: AMR and COVID-19 https://www.euro.who.int/_data/assets/pdf_file/0004/441751/COVID-19-AMR.pdf
- Wellcome Trust. Toolkit on communicating Antimicrobial Resistance <https://wellcome.ac.uk/reports/reframing-antimicrobial-resistance-antibiotic-resistance>
- Huttner B, Saam M, Moja L, et al How to improve antibiotic awareness campaigns: findings of a WHO global survey BMJ Global Health 2019;4:e001239. <https://gh.bmj.com/content/4/3/e001239.long>
- The fight against Antimicrobial Resistance is significant for cancer prevention and treatment , EN,RU <https://apps.who.int/iris/handle/10665/337511>
- Stop the COVID-19 pandemic from becoming an AMR catastrophe EN, RU <https://apps.who.int/iris/handle/10665/337513>

- The fight against Antimicrobial Resistance with Evidence-informed policy-making EN, RU
<https://apps.who.int/iris/handle/10665/337527>
- Food Safety and the fight against Antimicrobial Resistance EN, RU
<https://apps.who.int/iris/handle/10665/337525>
- Immunization strengthens the fight against Antimicrobial Resistance EN, RU
<https://apps.who.int/iris/handle/10665/337523>
- The fight against Antimicrobial Resistance supports efforts towards Better Labs for Better Health EN, RU
<https://apps.who.int/iris/handle/10665/337515>
- The fight against Antimicrobial Resistance supports migrant health EN, RU
<https://apps.who.int/iris/handle/10665/337521>
- The fight against Antimicrobial Resistance is closely linked to the Sustainable Development Goals EN, RU
<https://apps.who.int/iris/handle/10665/337519>
- Bacteria can make us ill. Antibiotics then (usually) help EN, RU
<https://apps.who.int/iris/handle/10665/337517>
- Tuberculosis and the fight against Antimicrobial Resistance EN, RU
<https://apps.who.int/iris/handle/10665/352460>
- Behavioural and Cultural Insights and the fight against Antimicrobial Resistance EN, RU
<https://apps.who.int/iris/handle/10665/352458>
- The fight against Antimicrobial Resistance requires a focus on gender EN, RU
<https://apps.who.int/iris/handle/10665/352456>
- The fight against Antimicrobial Resistance requires a focus on the health workforce EN, RU
<https://apps.who.int/iris/handle/10665/359109>
- The fight against Antimicrobial Resistance supports efforts towards Child and Adolescent Health EN, RU
<https://apps.who.int/iris/handle/10665/359106>

5. Surveillance resources

a) Antimicrobial resistance surveillance

- Global Antimicrobial Resistance and Use Surveillance System (GLASS) Report: 2021
<https://www.who.int/publications/i/item/9789240027336>
- Antimicrobial Resistance in the WHO African Region: a systematic literature review
<https://apps.who.int/iris/handle/10665/349223>
- Antimicrobial resistance surveillance in Europe 2022 – 2020 data
<https://apps.who.int/iris/handle/10665/351141>

- Whole-genome sequencing for surveillance of antimicrobial resistance. Sept 2020
 - <https://www.who.int/publications/i/item/9789240011007>
- GLASS guidance for national reference laboratories. Sept 2020
 - <https://www.who.int/publications/i/item/9789240010581>
- Global antimicrobial resistance surveillance system (GLASS) reports – all reports.
<https://www.who.int/initiatives/glass>
- GLASS method for estimating attributable mortality of antimicrobial resistant bloodstream infections.
<https://www.who.int/publications/i/item/9789240000650>
- WHO integrated global surveillance on ESBL-producing *E. coli* using a “One Health” approach.
Implementation and opportunities: 2021
<https://www.who.int/publications/i/item/who-integrated-global-surveillance-on-esbl-producing-e.-coli-using-a-one-health-approach>
- National antimicrobial resistance surveillance systems and participation in the Global Antimicrobial Resistance Surveillance System (GLASS): A guide to planning, implementation, and monitoring and evaluation (Also in French) <http://apps.who.int/iris/bitstream/10665/251554/1/WHO-DGO-AMR-2016.4-eng.pdf?ua=1>
- Diagnostic stewardship: A guide to implementation in antimicrobial resistance surveillance sites (Also in French) <http://apps.who.int/iris/bitstream/10665/251553/1/WHO-DGO-AMR-2016.3-eng.pdf?ua=1>
- Global Antimicrobial Resistance Surveillance System (GLASS) Manual for Early Implementation (English, French, Russian, Spanish) <https://www.who.int/publications/i/item/9789241549400>
- Emerging antimicrobial resistance reporting framework (GLASS-EAR).
<https://www.who.int/publications/i/item/9789241514590>
- The detection and reporting of colistin resistance. 2nd edition: 2021
<https://apps.who.int/iris/bitstream/handle/10665/343654/9789240019041-eng.pdf>
- Proof-of-principle antimicrobial resistance routine diagnostics surveillance project (PoP project): protocol: version 2.0: <https://apps.who.int/iris/handle/10665/346076>
- Molecular methods for antimicrobial resistance (AMR) diagnostics to enhance the Global Antimicrobial Resistance Surveillance System. <https://www.who.int/publications/i/item/WHO-WSI-AMR-2019.1>
- Global Antimicrobial Resistance Surveillance System (GLASS) early implementation protocol for the inclusion of *Candida* spp. (Also in Spanish). <https://www.who.int/publications/i/item/WHO-WSI-AMR-2019.4>
- Other GLASS enrolment and data management documents and tools (English & French)
 - <https://www.who.int/initiatives/glass/resource-centre>

- Central Asian and European Surveillance of Antimicrobial Resistance. Annual report 2020
<https://apps.who.int/iris/handle/10665/345873>
- Central Asian and European Surveillance of Antimicrobial Resistance CAESAR Manual Version 3, 2019
<https://apps.who.int/iris/handle/10665/346572>
- Surveillance of Antimicrobial Resistance and Use - Information note of the Global Leaders Group on Antimicrobial Resistance
 - <https://www.amrleaders.org/resources/m/item/surveillance-of-antimicrobial-resistance-and-use>

b) Antimicrobial consumption surveillance

- Training on GLASS methodology for national surveillance of antimicrobial consumption. World Health Organization 2022. <https://apps.who.int/iris/handle/10665/354258>
- GLASS methodology for surveillance of national antimicrobial consumption, World Health Organization; 2020 <https://www.who.int/publications/i/item/9789240012639>
French: Méthodologie GLASS pour la surveillance de la consommation des antimicrobiens au niveau national. Organisation mondiale de la Santé. <https://apps.who.int/iris/handle/10665/342115>
- GLASS manual on the management of antimicrobial consumption data, World Health Organization; 2020 <https://www.who.int/publications/i/item/9789240010192>

French : Manuel GLASS de gestion des données de consommation des antimicrobiens. Organisation mondiale de la Santé. 2021. <https://apps.who.int/iris/bitstream/handle/10665/345080/9789240029316-fre.pdf>
- GLASS guide for national surveillance systems for monitoring antimicrobial consumption in hospitals, World Health Organization; 2020 <https://apps.who.int/iris/handle/10665/336182>
Russian <https://apps.who.int/iris/bitstream/handle/10665/336182/9789240037342-rus.pdf>
Portuguese <https://apps.who.int/iris/bitstream/handle/10665/336182/9789240041561-por.pdf>
French: <https://apps.who.int/iris/bitstream/handle/10665/350566/9789240037328-fre.pdf>
Spanish: https://iris.paho.org/bitstream/handle/10665.2/54978/9789275324158_spa.pdf?sequence=1&isAllowed=y
- World Health Organization (2019). GLASS Methodology for Point Prevalence Survey for Antibiotic Use in Hospitals, <https://apps.who.int/iris/bitstream/handle/10665/280063/WHO-EMP-IAU-2018.01-eng.pdf?ua=1>
- Antimicrobial consumption in the EU/EEA (ESAC-Net) Annual Epidemiological Report for 2020 <https://www.ecdc.europa.eu/sites/default/files/documents/ESAC-Net%20AER-2020-Antimicrobial-consumption-in-the-EU-EEA.pdf>
- WHO Report on Surveillance of Antibiotic Consumption, 2016–2018 early implementation <https://apps.who.int/iris/bitstream/handle/10665/277359/9789241514880-eng.pdf?ua=1>

- WHO Collaborating Centre for Drug Statistics Methodology: ATC/DDD Index 2021
https://www.whooc.no/atc_ddd_index/
- Introduction to drug utilization research <https://apps.who.int/iris/handle/10665/42627>
- WHO Regional Office for Europe Antimicrobial Medicines Consumption (AMC) Network: AMC data, 2014-2018 (2021) <https://www.who.int/europe/publications/i/item/9789289055567>
- Assessing non-prescription and inappropriate use of antibiotics (2019)
<https://apps.who.int/iris/handle/10665/312306>

6. WHO laboratory strengthening tools

- Laboratory quality management system: handbook (Also in French, Russian, Spanish).
<https://www.who.int/publications/i/item/9789241548274>
- LQMS training toolkit <https://extranet.who.int/hslp/content/LQMS-training-toolkit>
- Quality Manual template <https://www.who.int/publications/m/item/laboratory-quality-manual>
- Laboratory Quality Stepwise Implementation tool (Also in French, Russian, Spanish, Turkish).
<https://extranet.who.int/lqsi/>
- Developing national laboratory policies and strategies
 - Development of National Laboratory Policies: Best practices document and facilitators' guide (English): <https://apps.who.int/iris/handle/10665/355631>
 - Developing a national laboratory strategic plan: Best practices document and facilitators' guide (English): <https://apps.who.int/iris/handle/10665/353746>
- Laboratory Assessment Tool
2 tools: 1 to assess the system, 1 to assess the facility. (Also in French, Russian, Spanish)
<https://www.who.int/publications/i/item/WHO-HSE-GCR-LYO-2012.2>
- Laboratory Biosafety Manual, 4th edition
<https://www.who.int/publications/i/item/9789240011311>
- Guidance on regulations for the Transport of Infectious Substances
<https://www.who.int/publications/i/item/9789240019720>
- WHO European Guidance on standards for infectious diseases laboratories
http://www.euro.who.int/_data/assets/pdf_file/0005/133457/e94772v2.pdf
- GLASS whole-genome sequencing for surveillance of antimicrobial resistance

<https://www.who.int/publications/i/item/9789240011007>

- GLASS guidance for national reference laboratories
<https://www.who.int/publications/i/item/9789240010581>
- Molecular methods for antimicrobial resistance diagnostics to enhance the GLASS
<https://www.who.int/publications/i/item/WHO-WSI-AMR-2019.1>
- GLASS technical note on the detection and reporting of colistin resistance
<https://www.who.int/publications/i/item/glass-the-detection-and-reporting-of-colistin-resistance-2nd-ed>
- Diagnostic stewardship: a guide to implementation in antimicrobial resistance surveillance sites
<https://www.who.int/publications/i/item/WHO-DGO-AMR-2016.3>

7. Prevention of Infection

a) Infection prevention and control (IPC) resources

WHO IPC home page <https://www.who.int/teams/integrated-health-services/infection-prevention-control>

This page provides resources on

- Hand hygiene
- Core components
- AMR
- Surgical site infection
- Injection safety
- Sepsis

[Newest publication also found here.](#)

- Global report on infection prevention and control
<https://www.who.int/publications/i/item/9789240051164>
- Understanding accelerators and overcoming barriers - the journey for developing or adapting an infection prevention and control guideline, https://www.euro.who.int/_data/assets/pdf_file/0011/538724/WHO-IPC-5-Steps-Roadmap-booklet-eng.pdf
- Understanding accelerators and overcoming barriers to IPC guideline development or adaptation – when, how, why, https://www.euro.who.int/_data/assets/pdf_file/0006/538728/WHO-IPC-5-Steps-Roadmap-when-how-why-eng.pdf

IPC and antimicrobial resistance (AMR) page <https://www.who.int/teams/integrated-health-services/infection-prevention-control/ipc-and-antimicrobial-resistance>

Key documents on this page include:

- Guidelines for the prevention and control of carbapenem-resistant Enterobacteriaceae, *Acinetobacter baumannii* and *Pseudomonas aeruginosa* in health-care facilities. <https://www.who.int/teams/integrated-health-services/infection-prevention-control/ipc-and-antimicrobial-resistance>
- Implementation manual to prevent and control the spread of carbapenem-resistant organisms at the national and health care facility level. <https://apps.who.int/iris/bitstream/handle/10665/312226/WHO-UHC-SDS-2019.6-eng.pdf?ua=1>

Of interest related to this topic is the Catheter-associated urinary tract infections course on OpenWHO <https://openwho.org/courses/IPC-CAUTI-EN>

Hand Hygiene

Tabs on this [page](#) for [Guidelines and evidence](#), [Implementation tools](#), [Training tools](#) and [Monitoring tools](#).

OpenWHO online course, Standard precautions: Hand hygiene: <https://openwho.org/courses/IPC-HH-en>

Guidelines and evidence

- [WHO guidelines on hand hygiene in health care](https://www.who.int/publications/i/item/9789241597906)
<https://www.who.int/publications/i/item/9789241597906>
- Hand hygiene in outpatient and home-based and long-term care facilities: a guide to the application of the WHO multimodal hand hygiene improvement strategy and the “My Five Moments for Hand Hygiene” approach <https://www.who.int/publications/i/item/9789241503372>

Implementation Tools

- A guide to the implementation of the WHO multimodal hand hygiene improvement strategy
<https://www.who.int/publications/i/item/a-guide-to-the-implementation-of-the-who-multimodal-hand-hygiene-improvement-strategy>
- Guide to local production: WHO recommended handrub formulations
<https://www.who.int/publications/i/item/WHO-IER-PSP-2010.5>
- Hand hygiene for all initiative: improving access and behavior in health care facilities
<https://www.who.int/publications/i/item/9789240011618>

You will also find an alcohol-based handrub planning and costing tool, leaflets on glove use, multimodal improvement and tools for creating an institutional safety climate.

Training tools

At this tab, you will find training and education resources on the importance of hand hygiene, the "My 5 Moments for Hand Hygiene" approach and the correct procedures for handrubbing and handwashing.

Monitoring tools - resources to support evaluation of hand hygiene practices among health-care workers.

IPC Core Components

- WHO Minimum requirements for infection prevention and control programmes
<https://www.who.int/publications/i/item/9789241516945>
- WHO Guidelines on core components of infection prevention and control programmes at the national and acute health care facility level (also available for download in French and Spanish).
<https://www.who.int/publications/i/item/9789241549929>
- Interactive core components, <http://www.developers-maraltro.com/who/4/>

There are several courses on the IPC channel of OpenWHO accessible here: <https://openwho.org/channels/ipc>. Of specific interest on the topic of core components is [IPC core components and multimodal strategies: https://openwho.org/courses/IPC-CC-MMIS-EN](https://openwho.org/courses/IPC-CC-MMIS-EN)

Surgical Site Infection

Here you will find guidelines as well as implementation resources, training tools, and monitoring tools for the prevention of SSIs, including the following key publications:

- Global guidelines for the prevention of surgical site infection
<https://www.who.int/publications/i/item/global-guidelines-for-the-prevention-of-surgical-site-infection-2nd-ed>
- Implementation manual to support the prevention of surgical site infections at the facility level: turning recommendations into practice <https://www.who.int/publications/i/item/WHO-HIS-SDS-2018-18>
- Decontamination and reprocessing of medical devices for health-care facilities
<https://www.who.int/publications/i/item/9789241549851>
- The Surgical site infections online course is also available on OpenWHO
<https://openwho.org/courses/IPC-SSI-EN>

Injection safety

Several injection safety resources are available [here](#), including guidelines, a toolkit, videos and leaflets.

OpenWHO online course, Standard precautions: Injection safety and needle-stick injury management
<https://openwho.org/courses/IPC-IS-EN>

Sepsis

There are several links to relevant sepsis resources available [here](#), including the Global report on the epidemiology and burden of sepsis <https://www.who.int/publications/i/item/9789240010789>

Monitoring/Assessment tools

- National infection Prevention and Control Assessment tool 2 (IPCAT2), <https://www.who.int/teams/integrated-health-services/infection-prevention-control/core-components>
- Infection Prevention and Control Assessment Framework (IPCAF), <https://apps.who.int/iris/handle/10665/330072>
- Assessment tool of the minimum requirements for infection prevention and control programmes at the national level, <https://www.who.int/publications/m/item/assessment-tool-of-the-minimum-requirements-for-infection-prevention-and-control-programmes-at-the-national-level>
- International Health Regulations (2005): state party self-assessment annual reporting tool, 2nd ed., <https://apps.who.int/iris/handle/10665/350218>
- Joint external evaluation tool: International Health Regulations (2005), 3rd ed. World Health Organization, <https://apps.who.int/iris/handle/10665/357087>

Additional IPC and AMR resources:

- Strengthening infection prevention and control in primary care: A collection of existing standards, measurement and implementation resources <https://www.who.int/publications/i/item/9789240035249>
- Framework and toolkit for infection prevention and control in outbreak preparedness, readiness and response at the national level, <https://apps.who.int/iris/handle/10665/345251>
- Responding to Outbreaks of Antimicrobial-resistant Pathogens in Health-care Facilities: Guidance for the Western Pacific Region <https://apps.who.int/iris/handle/10665/363498>
- Framework and toolkit for infection prevention and control in outbreak preparedness, readiness and response at the health care facility level, <https://apps.who.int/iris/handle/10665/361522>
- Transforming the care of babies with sepsis GARDP. <https://gardp.org/uploads/2022/04/GARDP-Neonatal-sepsis-study-results-2022.pdf>
- IPC for AMR advocacy document: The essential role of IPC to curb AMR, aimed at health policy decision-makers [https://cdn.who.int/media/docs/default-source/integrated-health-services-\(ihs\)/amr/ipc_amr_a4.pdf?sfvrsn=ede4a5cd_7](https://cdn.who.int/media/docs/default-source/integrated-health-services-(ihs)/amr/ipc_amr_a4.pdf?sfvrsn=ede4a5cd_7)
- Standard precautions for the prevention and control of infections: aide-memoire, <https://apps.who.int/iris/handle/10665/356855>
- Transmission-based precautions for the prevention and control of infections: aide-memoire, <https://apps.who.int/iris/handle/10665/356853>
- Infection prevention and control: guidance to action tools. World Health Organization. Regional Office for Europe. <https://apps.who.int/iris/handle/10665/341107>.

- Aide-memoire: respiratory and hand hygiene. In: Infection prevention and control: guidance to action tools. World Health Organization. Regional Office for Europe. <https://apps.who.int/iris/handle/10665/341418>.
- Aide-memoire: personal protective equipment. In: Infection prevention and control: guidance to action tools. World Health Organization. Regional Office for Europe. <https://apps.who.int/iris/handle/10665/341417>.
- Aide-memoire: environmental cleaning, waste and linen management. In: Infection prevention and control: guidance to action tools. World Health Organization. Regional Office for Europe. <https://apps.who.int/iris/handle/10665/341416>
- OpenWHO IPC channel <https://openwho.org/channels/ipc>

b) Water, sanitation & hygiene (WASH) resources

Webpages

- WHO Water sanitation hygiene webpage: <https://www.who.int/health-topics/water-sanitation-and-hygiene-wash>
- WHO UNICEF Knowledge portal on WASH in HCF: www.washinhcf.org.
- New WASHFIT portal. <https://washinhcf.org/wash-fit/>
- The JMP website (washdata.org)

Standards and guidelines

- WHO/UNICEF, 2020. Water, sanitation, hygiene and waste management for SARS-CoV-2, the virus that causes COVID-19. <https://www.who.int/publications/i/item/WHO-2019-nCoV-IPC-WASH-2020.4>
- WHO/FAO/WOA, 2020. Technical brief on water, sanitation, hygiene and wastewater management to prevent infections and reduce the spread of antimicrobial resistance. <https://www.who.int/publications/i/item/9789240006416>
- WHO, 2020. Achieving quality health services for all, through better water, sanitation and hygiene: Lessons from three African countries <https://www.who.int/publications/i/item/9789240009493>
- World Health Organization. (2021). Understanding barriers to quality of care: an approach for conducting a situational analysis of water, sanitation and hygiene (WASH) and quality in health care facilities. World Health Organization. <https://apps.who.int/iris/handle/10665/340297>

- WHO 2018. Guidelines on sanitation and health (Also in Arabic, French, Russian, Spanish) <https://www.who.int/publications/i/item/9789241514705>
- Overview of technologies for the treatment of infectious and sharp waste from health care facilities <https://www.who.int/publications/i/item/9789241516228>
- WHO 2017. Safe management of waste from health-care activities: a summary. World Health Organization, Geneva. <https://www.who.int/publications/i/item/WHO-FWC-WSH-17.05> (Also in French and Russian).

Monitoring

- WHO/UNICEF country tracker: progress on WASH in healthcare facilities <https://washinhcf.org/country-progress-tracker/#country-progress-tracker>
- WHO Regional Office for Europe, 2022. Drinking-water, sanitation and hygiene in the WHO European Region: highlights and progress towards achieving Sustainable Development Goal 6 (2022) <https://washdata.org/report/who-2022-regional-highlights-euro>
- WHO and UNICEF, 2022. Progress on WASH in health care facilities 2000–2021: special focus on WASH and infection prevention and control (IPC). <https://washdata.org/report/jmp-2022-wash-hcf-launch>
- WHO/UNICEF country tracker: progress on WASH in healthcare facilities. <https://washinhcf.org/country-progress-tracker/#country-progress-tracker>
- WHO/UNICEF, 2020. Global progress report on WASH in healthcare facilities: Fundamentals first. (Also in Arabic, French, Spanish) <https://www.who.int/publications/i/item/9789240017542>
- WHO/UNICEF, 2019. WASH in health care facilities. Global baseline report 2019. <https://www.who.int/publications/i/item/9789241515504>. (also available in Arabic, French, Russian and Spanish)
- WHO/UNICEF, 2019. Progress on household drinking water, sanitation and hygiene 2000-2017: special focus on inequalities. <https://www.who.int/publications/i/item/9789241516235>. (also available in Arabic, French, Russian and Spanish)
- WHO/UNICEF (2018) Core questions and indicators for monitoring WASH in health care facilities in the Sustainable Development Goals. <https://www.who.int/publications/i/item/9789241514545> (also in French, Arabic, Russian, Spanish).

Tools

- WASH FIT: A practical guide for improving quality of care through water, sanitation and hygiene in health care facilities. Second edition. <https://www.who.int/publications/i/item/9789240043237>
- WHO/UNICEF WASH FIT Manual for Trainers <https://www.who.int/publications/i/item/9789240047730>
- WASH FIT all technical modules. <https://www.washinhcf.org/wp-content/uploads/WASH-FIT-Modules.zip>
- [WASH FIT Fact Sheets | WASH in Health Care Facilities \(washinhcf.org\)](https://www.washinhcf.org)

- WHO/UNICEF/WaterAid 2020. COMBATTING ANTIMICROBIAL RESISTANCE through WATER, SANITATION AND HYGIENE and INFECTION PREVENTION AND CONTROL in HEALTH CARE. Infographic highlighting the benefits of combined efforts https://www.who.int/docs/default-source/wash-documents/wash-in-hcf/combating-antimicrobial-resistance.pdf?sfvrsn=cba673f_4
- WHO/UNICEF, 2020, WASH FIT simplified for COVID-19 assessment tool <https://www.washinhcf.org/resource/wash-fit-simplified-covid-19/>
- WHO. Water, sanitation, hygiene and Health: a primer for health professionals, 2019. <https://apps.who.int/iris/bitstream/handle/10665/330100/WHO-CED-PHE-WSH-19.149-eng.pdf>
- WHO/UNICEF Water, sanitation, and hygiene in health care facilities: Practical steps to achieve universal access for quality care, 2019. <https://www.who.int/publications-detail-redirect/9789241515511>

c) Immunization resources

- Bacterial vaccines in clinical and preclinical development 2021. <https://www.who.int/publications/i/item/9789240052451>
- World Health Organization. (2020). Annex to Immunization Agenda 2030: Leveraging Vaccines to Reduce Antibiotic Use and Prevent Antimicrobial Resistance: An Action Framework. https://cdn.who.int/media/docs/default-source/immunization/product-and-delivery-research/action-framework-draft.pdf?sfvrsn=2a63f53e_5&download=true
- Immunization Agenda 2030. <https://www.immunizationagenda2030.org/>
- WHO Immunization dashboard. <https://immunizationdata.who.int/>
- WHO. (2019). Intervention guidebook for implementing and monitoring activities to reduce missed opportunities for vaccination. <https://www.who.int/publications/i/item/9789241516310>
- Malaria vaccine: WHO position paper – March 2022. <https://www.who.int/publications/i/item/who-wer9709-61%E2%80%939380>
- Rotavirus vaccines: WHO position paper - July 2021. <https://www.who.int/publications/i/item/WHO-WER9628>

8. Optimize the use of antimicrobial medicines

a) Antimicrobial selection

- 2021 WHO AWaRe classification of antibiotics for evaluation and monitoring of use <https://www.who.int/publications/i/item/2021-aware-classification>
- World Health Organization 22nd Essential Medicines List (EML) (2021) <https://www.who.int/groups/expert-committee-on-selection-and-use-of-essential-medicines/essential-medicines-lists>

- World Health Organization model list of essential medicines for children: 8th list (2021)
<https://apps.who.int/iris/bitstream/handle/10665/345534/WHO-MHP-HPS-EML-2021.03-eng.pdf>
- Selection of essential medicines at country level: using the WHO Model List of Essential Medicines to update a national essential medicines list. Geneva: World Health Organization; 2020. Licence: CC BY-NC-SA 3.0 IGO <https://apps.who.int/iris/bitstream/handle/10665/330898/9789241515443-eng.pdf>
- Exposure to World Health Organization's AWaRe antibiotics and isolation of multidrug resistant bacteria: a systematic review and meta-analysis.
<https://www.sciencedirect.com/science/article/pii/S1198743X22001537>

b) Antimicrobial stewardship

- Online course: WHO Policy Guidance on Integrated Antimicrobial Stewardship Activities. <https://openwho.org/courses/policy-guidance-on-AMS>
- Online course: WHO practical toolkit for antimicrobial stewardship programmes in health-care facilities in low- and middle-income countries. <https://openwho.org/courses/practical-toolkit-for-AMS>
- Virtual Antimicrobial Stewardship Escape Room Game <https://www.biomerieux.com>
- Antimicrobial stewardship interventions: a practical guide. WHO Regional Office for Europe 2021
<https://apps.who.int/iris/bitstream/handle/10665/340709/9789289054980-eng.pdf>
- COVID-19 Clinical management: living guidance 23 November 2021
<https://www.who.int/publications/i/item/WHO-2019-nCoV-clinical-2021-2>
- WHO 2021. The selection and use of essential in vitro diagnostics - TRS 1031
<https://www.who.int/publications/i/item/9789240019102>
- WHO policy guidance on integrated antimicrobial stewardship activities (2021)
<https://www.who.int/publications/i/item/9789240025530>
- Antimicrobial stewardship programmes in health-care facilities in low- and middle-income countries: a WHO practical toolkit. WHO 2019
<https://www.who.int/publications/i/item/9789241515481>
- WHO EURO online course “Antimicrobial Stewardship: A competency-based approach” (English, French, Italian, Russian & Spanish) <https://openwho.org/courses/AMR-competency>.

- WHO Regional Office for Europe. Assessing non-prescription and inappropriate use of antibiotics (2019) <https://apps.who.int/iris/handle/10665/312306>
- WHO 2018. Methods to analyse medicine utilization and expenditure to support pharmaceutical policy implementation <https://apps.who.int/iris/handle/10665/274282>
- Drug and Therapeutics Committees - A Practical Guide, WHO, 2003 (Also in French). <https://apps.who.int/iris/handle/10665/68553>

c) Quality of antimicrobials

- Operational principles for good pharmaceutical procurement <https://apps.who.int/iris/handle/10665/66251>
- Model quality assurance system for procurement agencies (also in French) <https://apps.who.int/iris/handle/10665/69721>

d) Resources specific to Latin America

- Acceso a medicamentos de alto costo (2009) <http://www1.paho.org/hq/dmdocuments/2009/Alto%20Costo%20Americas.pdf>
- Acceso y uso racional de medicamentos y otras TS de alto costo (2016) http://www.paho.org/hq/index.php?option=com_docman&task=doc_download&gid=36189&Itemid=270&lang=es
- Lista de productos del Fondo Estratégico
 - a. <https://www.paho.org/en/node/58472>

9. Monitoring

- TrACSS 2021 Country Profiles [TrACSS 2021 Country Profiles \(who.int\)](#)
- Country progress in the implementation of the global action plan on antimicrobial resistance: Data from fifth round of the Tripartite AMR Country Self-Assessment Survey (TrACSS) 2020-2021. <https://amrcountryprogress.org/>.
- Monitoring global progress on antimicrobial resistance: Tripartite AMR country self-assessment survey (TrACSS) 2019-2020 [https://www.who.int/publications/i/item/monitoring-global-progress-on-antimicrobial-resistance-tripartite-amr-country-self-assessment-survey-\(tracss\)-2019-2020](https://www.who.int/publications/i/item/monitoring-global-progress-on-antimicrobial-resistance-tripartite-amr-country-self-assessment-survey-(tracss)-2019-2020)
- Tripartite Monitoring and Evaluation (M&E) framework for the Global Action Plan on Antimicrobial Resistance, with Methodology sheets for recommended indicators
 - <https://www.who.int/publications/i/item/monitoring-and-evaluation-of-the-global-action-plan-on-antimicrobial-resistance>

10. One Health

- Antimicrobial resistance and the United Nations sustainable development cooperation framework: guidance for United Nations country teams <https://www.who.int/publications/i/item/9789240036024>
- Strategic framework for collaboration on antimicrobial resistance. Together for One Health <https://www.who.int/publications/i/item/9789240045408>
- Antimicrobial Resistance Multi-Partner Trust Fund annual report 2021 <https://www.who.int/publications/i/item/9789240051362>
- Global Leaders Group on Antimicrobial Resistance statement on Codex Guidelines on integrated monitoring and surveillance of food borne antimicrobial resistance and Code of Practice to minimize and contain food borne antimicrobial resistance <https://www.amrleaders.org/resources/m/item/codex-guidelines-on-integrated-monitoring-and-surveillance-of-food-borne-antimicrobial-resistance-and-code-of-practice-to-minimize-and-contain-food-borne-antimicrobial-resistance>
- One Health Joint Plan of Action 2022-2026, <https://www.woah.org/app/uploads/2022/04/oh-jpa-14-march-22.pdf>

Food safety & zoonotic diseases

- FAO and WHO. 2022. Foodborne antimicrobial resistance: Compendium of Codex standards <https://www.fao.org/3/cb8554en/cb8554en.pdf>
- Codex guidelines for Risk Analysis of Foodborne antimicrobial resistance. Adopted in 2011. Revised in 2021. [Guidelines for Risk Analysis of Foodborne Antimicrobial Resistance \(fao.org\)](#)

- Guidelines on Integrated Monitoring and Surveillance of Foodborne antimicrobial resistance (2021) https://www.fao.org/fao-who-codexalimentarius/sh-proxy/en/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252FStandards%252FCXG%2B94-2021%252FCXG_94e.pdf
- Code of practice to minimise and contain foodborne antimicrobial resistance Adopted in 2005. Amended in 2021. https://www.fao.org/fao-who-codexalimentarius/sh-proxy/en/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252FStandards%252FCXC%2B61-2005%252FCXC_061e.pdf
- WHO List of Critically Important Antimicrobials, 6th Revision, 2019 (WHO CIA List). <https://www.who.int/publications/i/item/9789241515528>
- WHO guidelines on use of medically important antimicrobials in food-producing animals, Nov 2017 (Also in French). <https://www.who.int/publications/i/item/9789241550130>
- AGISAR guidance for integrated surveillance of AMR in foodborne bacteria: Application of a One Health approach, 2017. <http://apps.who.int/iris/bitstream/10665/255747/1/9789241512411-eng.pdf?ua=1>

11. Environment

- Summary for Policymakers - Environmental dimensions of antimicrobial resistance <https://www.unep.org/resources/report/summary-policymakers-environmental-dimensions-antimicrobial-resistance>
- Antimicrobial Resistance in the Environment Webinar Series <https://www.unep.org/events/webinar/antimicrobial-resistance-environment-webinar-series>
- Call to action by the Global Leaders Group on Antimicrobial Resistance on reducing antimicrobial discharges from food systems, manufacturing facilities and human health systems into the environment <https://www.amrleaders.org/resources/m/item/reducing-antimicrobial-discharges-from-food-systems-manufacturing-facilities-and-human-health-systems-into-the-environment>

12. AMR and broader initiatives

- Antimicrobial Resistance and the Climate Crisis - Information note of the Global Leaders Group on Antimicrobial Resistance <https://www.amrleaders.org/resources/m/item/antimicrobial-resistance-and-the-climate-crisis>
- Why AMR must be a substantive element of the international instrument on pandemic prevention, preparedness and response – GLG statement <https://www.amrleaders.org/resources/m/item/why-amr-must-be-a-substantive-element-of-the-international-instrument-on-pandemic-prevention-preparedness-and-response>

- EVIPNet evidence brief for policy: tackling antimicrobial resistance in primary health care through promoting the appropriate use of antibiotics in Estonia <https://apps.who.int/iris/handle/10665/351528>
- CDC 2022 Special Report Covid-19 U.S. Impact on Antimicrobial Resistance <https://www.cdc.gov/drugresistance/pdf/covid19-impact-report-508.pdf>
- WHO HIV drug resistance report 2021 <https://www.who.int/publications/i/item/9789240038608>
- TB, HIV, malaria and neglected tropical diseases: Strengthening collaboration to prevent and manage antimicrobial resistance. <https://apps.who.int/iris/bitstream/handle/10665/311689/9789241515450-eng.pdf>
- Antimicrobial resistance and primary health care. Technical series on primary health care brief on the occasion of the Global Conference on Primary Health Care. https://apps.who.int/iris/handle/10665/326454?search-result=true&query=primary+health+care&scope=&rpp=10&sort_by=score&order=desc
 - Short version: http://www.who.int/docs/default-source/primary-health-care-conference/amr.pdf?sfvrsn=8817d5ba_2

13. Other

- WHO AMR Division online AMR Community Exchange platform. Register at amrcommunityexchange.org
- Global Antibiotic Research & Development Partnership (GARDP) Antimicrobial Encyclopaedia <https://revive.gardp.org/resources/encyclopaedia/>
- ReAct ToolBox <https://www.reactgroup.org/toolbox/>
 - ReAct Boîte à outils <https://www.reactgroup.org/toolbox/>
- CIDRAP Antimicrobial Stewardship Project Newsletter. Subscribe here <http://www.cidrap.umn.edu/newsletter>
- JAC – Antimicrobial Resistance (JAC-AMR) - an open-access journal that publishes academic content and peer-reviewed commentary on stewardship resources. <https://academic.oup.com/jacamr>
- Gulf–Middle East–North Africa Educational Collaborative on Antimicrobial Stewardship: a network that hosts a discussion forum and a collection of resources. <http://mena-ams.com/>
- Open University/Fleming Fund Online learning: Tackling Antimicrobial Resistance Courses. <https://www.open.edu/openlearncreate/course/index.php?categoryid=415>

