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REGIONAL OFFICE FOR THE Eastern Mediterranean

AMR NEWSLETTER

Implementation of the Global Action Plan on Antimicrobial Resistance in the Eastern Mediterranean Region

Antimicrobial resistance and infection control are priorities for the Region

The WHO Regional Office for the Eastern Mediterranean is pleased to announce the publication of its first newsletter on antimicrobial resistance and infection prevention and control to provide news updates and highlight country achievements and progress in advancing the global agenda to reduce antimicrobial resistance and improve infection control practices in the Region.

Member States of WHO's Eastern Mediterranean Region have shown firm commitment to address antimicrobial resistance by endorsing regional resolution (EM/RC64/R.5 http://applications.emro.who.int/docs/RC64_Resolutions_2017_R5_20136_EN.pdf?ua=1).

during the Sixty-fourth Session of the Regional Committee in 2017 in Islamabad, Pakistan. As a result of this commitment, a restructuring of the regional programme took place to incorporate both antimicrobial resistance and infection control under the leadership of Dr Maha Talaat, now the Regional Adviser and a renowned expert in these areas. The programme will be responsible for coordinating activities across WHO technical programmes and serve as the main point of contact for country offices, headquarters and external partners.

There has been a tremendous progress in the development of national action plans for antimicrobial resistance. More than half of the countries of the Region have engaged in this process expressing their commitment to address the global issue of antimicrobial resistance. A number of countries from the Region have also enrolled in WHO's Global Antimicrobial Resistance Surveillance System (GLASS). January 2018 saw the publication of the first "Global Antimicrobial Resistance Surveillance System Report: Early Implementation 2016–2017" which

National action plans for antimicrobial resistance

Regional progress

There has been tremendous progress in the Region in the past year in the development of national action plans for antimicrobial resistance, with 17 countries either in the process of developing their plan or having completed the process.

- Afghanistan, Jordan, Oman, Pakistan and Saudi Arabia have completed the process.
- Egypt, Iraq, Sudan, Qatar, Sudan and Tunisia are in the final stages of completing their plans.
- Bahrain, Islamic Republic of Iran, Lebanon, Libya, Kuwait, Morocco and United Arab Emirates are in the process.

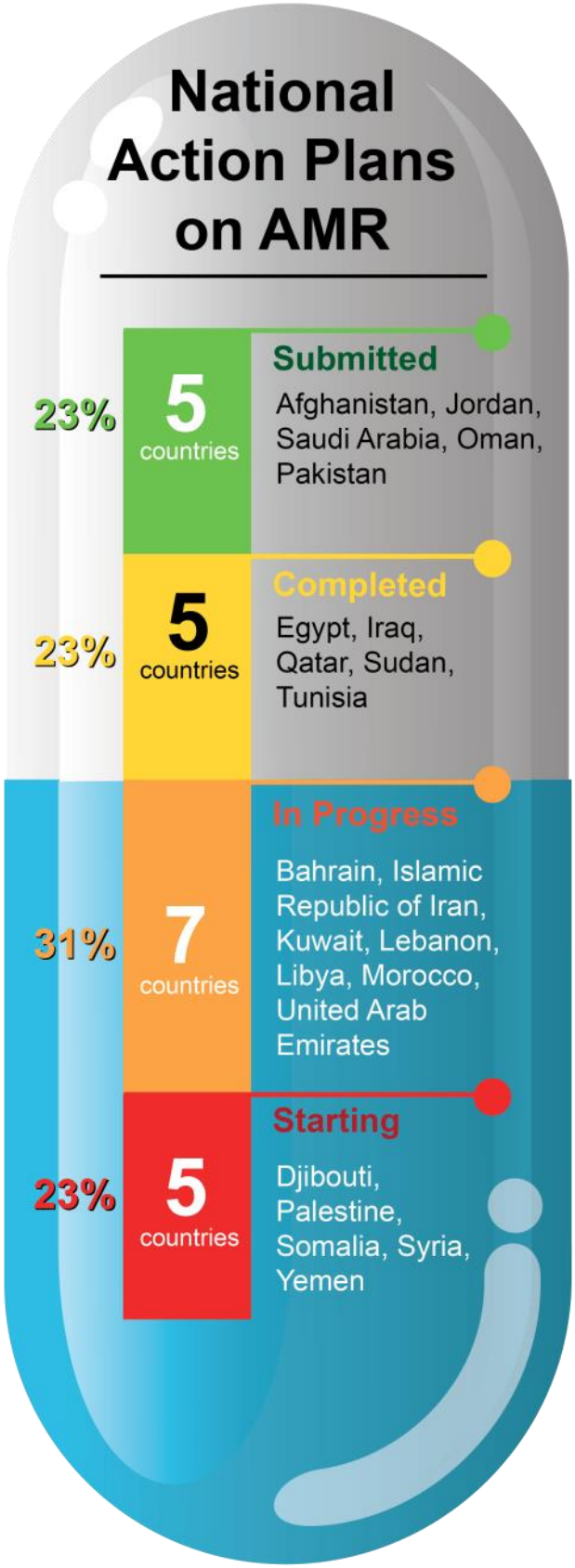
The development of national AMR action plans aligns with the Global Action Plan on Antimicrobial Resistance that was endorsed by the Sixty-eighth World Health Assembly in 2015. Development of national plans through several stakeholders representing human and animal sectors is the first step in coordinating AMR activities and using a “One Health Approach”.

The Global Action Plan for Antimicrobial Resistance is based on five strategic areas:

- improving awareness and understanding of antimicrobial resistance through effective communication, education and training
- strengthening knowledge and the evidence base through surveillance and research
- reducing the incidence of infection through improved infection prevention and control measures
- optimizing the use of antimicrobial medicine in human and animal health customized to fit national priorities and context
- ensuring sustainable investment in countering antimicrobial resistance.

Global Action Plan on AMR (http://www.who.int/antimicrobial-resistance/global-action-plan/en/)

All national plans are available at: http://www.who.int/antimicrobial-resistance/national-action-plans/en/



National action plans on antimicrobial resistance

Library of national action plans

A library of existing, publicly available national action plans on antimicrobial resistance has been compiled which countries may wish to consult. WHO will update this library regularly as new information becomes available on existing national action plans, and as new plans are published. WHO welcomes any additional information of relevance to existing and newly developed national action plans.

Library of national action plans (http://www.who.int/antimicrobial-resistance/national-action-plans/library/en/)

Libya

The National Centre for Disease Control in Libya has recognized the importance of addressing antimicrobial resistance in spite of the fragile health system and the challenges of a complex health emergency. Dynamic discussions characterized the workshop on AMR, organized by WHO country office, in partnership with the National Centre for Disease Control on 4–7 February 2018 in Tunis, Tunisia, to develop Libya's national action plan. The workshop was attended by 35 participants representing relevant sectors and institutions in Libya, including several high-level officials, including Dr Jaffar Hussain, WHO Representative to Libya, Professor Badereddin Annajar, Director-General of the National Centre for Disease Control, Dr Nureddin Aribi, Senior Advisor, Ministry of Health. Dr Aref Hussain, representative of the International Organization of Migration office in Libya and Dr Sabri Gmach, Health and Security interface, WHO headquarters also attended the workshop and presented a special session on antimicrobial resistance and migrants.

Egypt

Egypt has developed a national action plan for antimicrobial resistance through three stakeholder workshops, culminating in the most recent workshop on 6-8 March 2018 which included 50 participants from the human health and animal health sectors, and focal points from the Ministries of Education and Environment, the pharmaceutical industry, private sector and Egyptian civil society participated. The workshop resulted in a final draft of Egypt's national action plan and highlighted the country's commitment to adopt a multisectoral response to address antimicrobial resistance.

Jordan

A consultative workshop for the development of a national action plan for AMR for Jordan took place 26–30 November 2017 in Amman, Jordan, inaugurated by H.E. the Minister of Health Dr Mahmoud Sheyab. Participants included representatives from the human health and animal heath sectors and academia. Workshop facilitators were staff from the WHO Regional Office and the Food and Agriculture Organization of the United Nations (FAO).

Tunisia

A workshop to develop a national action plan for antimicrobial resistance for Tunisia took place 8–9 February 2018 in Tunis, Tunisia. It was attended by a group of multisectoral stakeholders comprising 45 representatives from the human health and animal health sectors. The group reviewed and finalized an earlier draft of the plan.

What policy-makers can do

1. Ensure that you have a robust national action plan to tackle antibiotic resistance
2. Improve surveillance of antibiotic-resistant infections
3. Strengthen policies and implementation of infection prevention and control measures
4. Regulate and promote the appropriate use of quality medicines
5. Make information on the impact of antibiotic resistance available

Behaviour change pilot projects launched in Egypt, Sudan and Qatar

Behaviour change pilot projects entitled Tailoring Antimicrobial Resistance Programmes for the Eastern Mediterranean Region (TAP) were implemented in Egypt, Sudan and Qatar.

The Global Action Plan on Antimicrobial Resistance calls for countries to improve awareness and understanding of antimicrobial resistance through effective communication, education and training to reduce risky practices contributing to antimicrobial resistance.

Behaviour change interventions are fundamental in this regard because resistance spreads due to the misuse and overuse of antibiotics, as well as poor infection prevention and control measures.

The methodology follows a process of three phases that build on one another, including: 1) situation analysis; 2) behaviour analysis; and 3) intervention. TAP is based on the idea that behaviour change programmes must be developed with an understanding of the social and behavioural contexts.

The methodology follows rapid assessment methods, focusing on understanding local behavioural drivers and identifying local solutions for change. The pilots will include rigorous evaluation to inform expansion of the programme.

Egypt aims to change antibiotic prescription behaviours in a university hospital

TAP Egypt is a collaboration between Ain Shams University Hospitals, the WHO country office in Egypt and the WHO Regional Office. The project started with a five-day training workshop from 3 to 7 December 2017 in Cairo, Egypt, with a welcoming speech from Dr Abdel Wahab Ezzat, President of Ain Shams University.

TAP in Egypt focuses on improving proper prescription of antibiotics in intensive care units, neonatal intensive care units and orthopedic departments of Ain Shams University Hospitals.

Staff members of the Ain Shams University hospital central infection control unit

Qatar initiates behaviour change pilot in primary health care

On 25 February 2017 the tailoring antimicrobial interventions project (TAP) for the Eastern Mediterranean Region behaviour change project was launched in Doha, Qatar, at an orientation meeting attended by approximately 50 participants from various sectors, departments and hospitals across the country, and included representatives of the private sector.

The meeting was followed by four days of training on the TAP methodology for a group of 20 professionals interested in behaviour change programming in health care settings.

The pilot is a collaboration between the WHO Regional Office and the Health Care Quality Management and Patient Safety Department of the Ministry of Health in Qatar.

An orientation meeting on the behaviour change pilot study gathered interested professionals from various departments of the Ministry of Health

Sudan proceeds with a community-based One Health behaviour change pilot project

TAP Sudan is a collaboration between the Federal Ministry of Health in Sudan, the WHO country office and WHO Regional Office. Social scientists from the WHO country office and Regional Office conducted a training workshop for 25 professionals in the areas of human health and animal health on 18–22 January 2018 in Khartoum, Sudan.

In March 2018, the Ministry of Livestock together with the Food and Agriculture Organization of the United Nations joined the pilot, making it the first behaviour change pilot under a One Health approach.

The behaviour pilot project is being conducted in Gezira State in a primary health care setting in a rural community where the target audience will include prescribers, dispenser and consumers of antibiotics as well as farmers and veterinarians.

A team consisting of experts from the Federal Ministry of Health in Sudan, Ministry of Livestock, FAO Sudan office, WHO country office and the WHO Regional Office have currently completed phase 2: qualitative research on barriers and facilitators of behaviour on the first phase (situation analysis) to build an overall understanding of the context of antibiotic use in Sudan.

A stakeholder consultation in Gezira State in April 2018 was attended by health and animal health sectors

World Antibiotic Week 2017 in the Region

The Region's celebration of World Antibiotic Awareness Week in 2017 was a great success. More countries than ever before organized and participated in innovative and effective activities to mark the week and reach out to a greater number of people to raise their awareness of the problem of antibiotic resistance.

Campaign activities focused on raising the public's awareness with slogans such as "Consult your doctor before obtaining antibiotics," which is an extremely important message for a Region, in which self-medication with antibiotics is very common and antibiotics are available over the counter in several countries.

Campaign messages urged the public to seek advice before taking antibiotics

The Week was launched in the Region with an event on 13 November 2017 that gathered more than 100 collaborators and partners, including more than 30 representatives of the media to celebrate the week. Four countries from the Region joined the event via Webex to share their plannned activities for the campaign. The launch at the WHO Regional Office was an important advocacy initiative to highlight the importance of the issue of antimicrobial resistance to all its partners in the Region.

Regional communication materials

A series of radio spots were developed in Arabic, English, Farsi, French and Urdu and four Arabic dialects, and a testimonial video was produced, which was subtitled in five languages.

A web-based application to pledge to become a WHO hero and download a HERO certificate was developed and promoted via social media during the week.

A competition was launched to promote greater media coverage in the print media, and on TV and radio.

Access communication tools (http://www.emro.who.int\world-antibiotic-awareness-week\2017\index.html)

Become a WHO hero and pledge to fight antimicrobial resistance

Egypt involves academia to promote the proper use of antibiotics

The WHO country office in Egypt held a scientific day in collaboration with Cairo University Hospitals. The meeting gathered academia in Egypt to discuss antimicrobial resistance in Egypt and the risks that it poses to health care and the population at large. Attendees also included representatives from the Ministry of Health and Population, public health and clinical departments.

“Members of academia and health professionals are an ideal target audience to disseminate messages on proper use of antibiotics in Egypt as they are highly influential individuals with wide professional networks,” explained WHO National Professional Officer Dr Omar Abouelata.

The WHO country office used a number of different communication tools during awareness week, including several radio interviews to help spread campaign messages about the issue. A social media campaign was also active throughout the week.

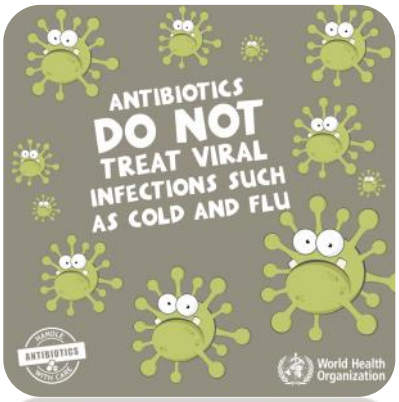
Awareness raising will remain one of the key elements in the Egyptian response to antimicrobial resistance.

Jordan promotes One Health concept

Jordan promotes the Week through photos

A multi-faceted campaign during World Antibiotic Awareness Week in Jordan covered a wide variety of activities in both the human health and animal health sectors. Not only did both sectors conduct activities to promote the proper use of antibiotics, but they also held joint activities, including issuing a joint press release, conducting discussions, giving presentations and producing a video clip featuring a health professional and an animal health expert answering questions about antimicrobial resistance.

“Jordan has provided a stellar example of successful collaboration between the human health and animal health sectors as a means to raise awareness about antimicrobial resistance,” said Dr Mohamed Abdallat from the Ministry of Health in Jordan.



Iraq promotes proper use of antibiotics in different settings

School-based activities in Iraq raised the awareness of schoolchildren to the problem of antibiotic resistance

World Antibiotic Awareness Week was the first antibiotic awareness-raising campaign undertaken in Iraq. In cooperation with the Ministry of Health, a number of concerned ministries engaged in dialogue about the improper use of antibiotics to help raise awareness of resistance and to garner commitment to join the global fight to reduce its global spread.

Numerous events were organized over the week of 13–19 November 2017, in partnership with the Ministries of Higher Education, Health, Agriculture, Migration and Displacement, as well as the veterinary syndicate, and among private sector and civil society organizations.

“Our collaboration and partnerships with other ministries and organizations across Iraq is a strong first step in raising awareness about the important role we all have to play in stopping the spread of antimicrobial resistance," said Dr Ali Akbar from the WHO country office in Iraq.

Libya promotes evidence-based advocacy

Medical students receive certificates of participation in World Antibiotic Awareness Week 2017

World Antibiotic Awareness Week in Libya culminated in a high-level advocacy meeting on 14 December 2017.

Surveillance on antibiotic prescription practices preceded the meeting. Medical and pharmacy students from the University of Tripoli conducted the data collection in an effort to learn about prescription, dispensing and consumption practices among physicians, pharmacists and the public in Tripoli.

The data were shared in the advocacy meeting, generating rich discussions on the need to take collective action and reduce the improper use of antibiotics in all sectors in Libya.

Kuwait celebrates the Week

Booths in Kuwait hospitals displayed various posters and leaflets

The Infection Control Directorate of the Ministry of Health in Kuwait launched World Antibiotic Awareness Week with a high-level meeting and workshop that gathered a number of senior health officials to discuss the relevance and the importance of implementing the Global Action Plan for AMR in Kuwait. Participants examined the threat of antimicrobial resistance, as well as hospital-acquired infections and means to control them. The sessions also included discussions on establishing an antibiotic stewardship programme, and the importance of improving laboratory capacity and AMR surveillance, including enrolling in the WHO Global Antibiotic Resistance Surveillance System in Kuwait.

“Linking the antimicrobial resistance Global Action Plan with the context and needs of Kuwait is an important undertaking. This campaign gives us an opportunity to advocate for the implementation of the plan,” said Dr Mariam Al-Fadhli from the Ministry of Health in Kuwait.

Pakistan walks to raise awareness of AMR

Pakistan health walks during the Week aimed to raise awareness of the public and private health care providers

Pakistan celebrated World Antibiotic Awareness Week 2017 with a significant number of events targeting both the public, and private health care providers across many sectors and impressive geographical area. Among the activities undertaken, awareness walks proved to be highly popular ways to improve understanding of proper antibiotic use and increase risk perceptions linked to antimicrobial resistance.

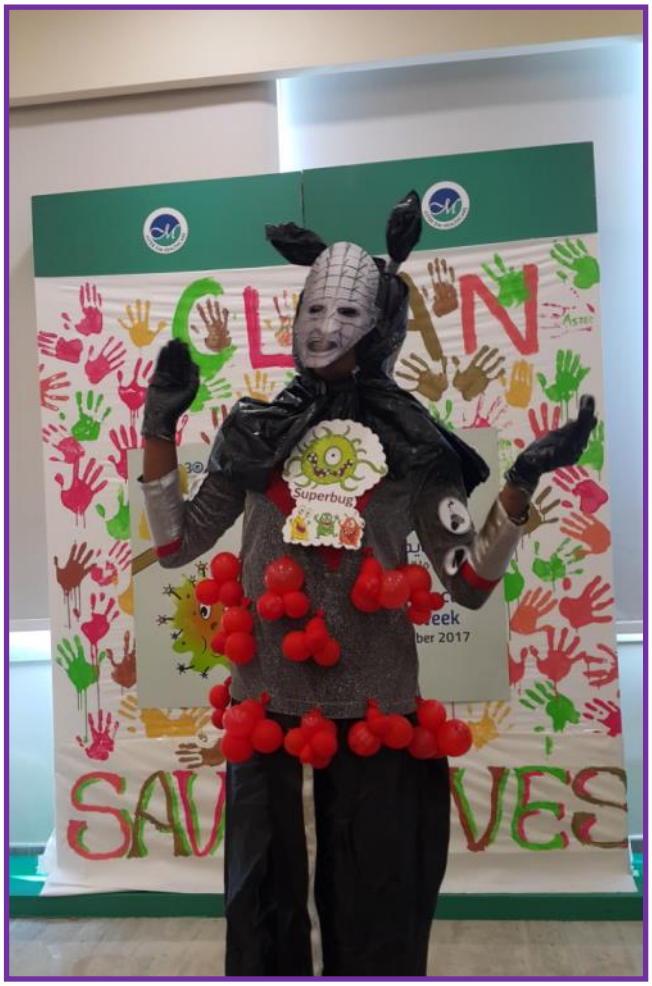
Representatives of various organizations from all levels and the public and private sector enthusiastically participated in the walk.

At the end of the walk speakers including Dr Mumtaz Khan, Dr Ejaz Khan and Dr Javed Arshed from both health and veterinary sectors addressed the gathering to highlight the importance of rational use of antibiotics, advocating against self-medication and over-the-counter access to antibiotics without prescription.

Qatar gets visually creative to educate the public on the proper use of antibiotics and the dangers of antimicrobial resistance

The Ministry of Public Health in Qatar conducted a number of innovative awareness activities during World Antibiotic Awareness Week in 2017, in collaboration with health care facilities (governmental, semi-governmental and private sectors), academic institutions and all relevant sectors. The successful, multi-faceted campaign engaged with the public, health care providers, and hard-to-reach populations, including male expat labourers. Activities took place at the Qatar Red Crescent Society to teach people about the proper use of antibiotics and the dangers of antimicrobial resistance.

Communicating health information to expat labourers is challenging as they comprise a diverse array of different nationalities and languages. As a creative activities were conducted with the audience using pantomime style role play.



WHO Global Antimicrobial Resistance Surveillance System highlights threat of antimicrobial resistance

In January 2018, the first report on global antimicrobial resistance surveillance system (GLASS) was released. GLASS is the first global collaborative effort aimed at supporting global surveillance and research in order to strengthen the evidence base on AMR and help inform decision-making and drive national, regional and global actions. GLASS also supports a standardized approach to the collection, analysis, and sharing of data at a global level by facilitating the establishment of national surveillance systems for antimicrobial resistance capable of producing reliable resistance data to inform prevention and response.

GLASS supports the development of three essential core components for national surveillance: a national coordination centre, a national reference laboratory and sentinel surveillance sites. Most important is that GLASS promotes an important shift from surveillance based solely on laboratory data to a system that integrates epidemiological, clinical and laboratory data focusing on eight priority pathogens isolated from blood, urine, stool and genital specimens. For each pathogen, a number of antibiotic combinations were identified which provide either therapeutic options for physicians to treat patients or serve as an indicator for certain types of resistance.

Global summary

As of 9 December 2017, 50 countries from across WHO regions were enrolled in GLASS, of which 40 countries provided information on their surveillance systems, and 22 countries provided 2016 data included in the global implementation report. In the Eastern Mediterranean Region, 9 out of 22 countries are reporting to GLASS, which is more than in any other WHO region.

Susceptibility levels varied tremendously between countries, where among patients with suspected bloodstream infection, the proportion that had bacteria susceptible (sensitive) to at least one of the most commonly used antibiotics (penicillin, ciprofloxacins, cephalosporins) ranged from 18% to 100%. Susceptibility to penicillin – the medicine used for decades worldwide to treat pneumonia – ranged from 49% to 100% among reporting countries. *E. coli* susceptibility to ciprofloxacin (an antibiotic commonly used to treat this condition) ranged from 35% to 92%.

Regional data

Countries of the Region have shown exceptional engagement in enrolling in GLASS. Since 2016, more than half of the countries in the Region (12/22) have joined GLASS, including Afghanistan, Bahrain, Egypt, Islamic Republic of Iran, Lebanon, Oman, Pakistan, Saudi Arabia, Tunisia, United Arab Emirates and most recently Iraq, and Jordan. 11 countries have established the platforms necessary for national surveillance. All have identified AMR focal points, nine countries assigned surveillance sites, and 10 countries designated a national reference laboratory for antimicrobial resistance.

For this year's report, data from only four countries were presented (Egypt, Lebanon, Bahrain and Tunisia). Three additional countries (Islamic Republic of Iran, Saudi Arabia and United Arab Emirates) shared their data, which will be included in the GLASS report of 2018. We congratulate all the seven countries for sharing data at the global system and we commend their contribution to improving the understanding of the extent of antimicrobial resistance in the Region.

There was variability in the levels of data reported. Resistance of *Enterobacteriacae* to third generation cephalosporins ranged from 50% up to 100%; while resistance to carbapenems (last resort treatment to infections caused by Gram negative pathogens) was ranging from 5% to 45% in *Enterobacteriacae* and 85% in *Acinetobacter* spp.

GLASS data have demonstrated that the world is facing a serious problem that must be addressed before it is too late," said Dr Maha Talaat, Regional Adviser, WHO Regional Office. She said that unless countries started using national resource(funds and capacities) for antimicrobial resistance, the situation will be aggravated and the achievements of the Sustainable Development Goals will be delayed. GLASS data although contributing to better understanding of the magnitude of the problem globally; in the Region, the limitations of the data presented are yet to be recognized and care is needed in interpreting these data, particularly for low- and middle-income countries, said Dr Talaat. These limitations include the small numbers of reporting sites, data quality and completeness, and a lack of data on community-acquired infections.

Global antimicrobial resistance surveillance system (GLASS) report: Early implementation 2016-2017 (http://www.who.int/glass/resources/publications/early-implementation-report/en/)