University of Eastern Africa Baraton, Kenya

Student assignment – Master's Degree in Global Health Care

Global Health Priorities and Health Policy at National Level

Antimicrobial resistance

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Document synopsis:

For this assignment the Global Health priority of Antimicrobial Resistance was chosen. The implications, goals and international actors are described on Global level and on National level. For the part on National level (chosen country The Netherlands, as the author is a Dutch national) information is given concerning raising public awareness to the public on antibiotic resistance.

As this assignment had the limitation of a maximum of 1500 words, it is identifying the main aspects as instructed for this assignment, but as this Global Health priority is a very complex subject, 1500 words gives the opportunity of only scratching the surface. For the same reason the part concerning National policy is narrowed down to one aspect of the National Health Policy on approach to antibiotic resistance.

It becomes clear that if this Global Health priority is not addressed effectively, it will have a great impact on all humans on earth. To deal with the problem of Antimicrobial Resistance it needs the cooperation and collaboration of organisations, governments and public.

Table of contents

List of Figures

List of Abbreviations and Symbols

AMR	Antimicrobial Resistance
FAO	Food and Agriculture Organisation of the United Nations
GDP	Gross Domestic Product
GLASS	Global Antimicrobial Resistance Surveillance System
OIE	World Organisation for Animal Health
RIVM	Rijksinstituut voor Volksgezondheid en Milieu (eng. National Institute for Public Health and the Environment)
STAG	Strategic and Technical Advisory Group
WHO	World Health Organisation

1 GLOBAL HEALTH PRIORITY: ANTIMICROBIAL RESISTANCE

In 2014 the WHO produced the report “Antimicrobial resistance: 2014 global report on surveillance.” This report reveals the seriousness of the situation of AMR all around the world. The implications are that anyone’s health and life, anywhere in the world, is at risk because of the loss of effective treatment against even common infections. As Dr Keiji Fukuda of the WHO states (quote) “Without urgent, coordinated action by many stakeholders, the world is headed for a post-antibiotic era, in which common infections and minor injuries which have been treatable for decades can once again kill,” (end quote) (World Health Organisation. 2014. WHO sixty-ninth world health assembly 2016).

Antimicrobial medicines are: anthelmintics, antibiotics, antifungals, antivirals and antimalarials. Antibiotic resistance is the biggest threat, AMR is including all the above mentioned medicines.

In the factsheet on AMR from WHO of September 2016 it is brought forward that the gains of the Millennium Development Goals are at risk. The lack of effective antimicrobial medicine is having its negative effect on the treatment of for example infectious diseases, tuberculosis, HIV and malaria (Antimicrobial resistance WHO Factsheet 2016). The economic implications of AMR will endanger achieving eradication of poverty.

2 GLOBAL ACTION PLAN ON MICROBIAL RESISTANCE

In 2015 the WHO published “Global action plan on antimicrobial resistance.” In this publication there are given five strategic objectives and a framework for action. The five strategic objectives are (quote):

- to improve awareness and understanding of antimicrobial resistance;
- to strengthen knowledge through surveillance and research;
- to reduce the incidence of infection;
- to optimize the use of antimicrobial agents; and

- develop the economic case for sustainable investment that takes account of the needs of all countries, and increase investment in new medicines, diagnostic tools, vaccines and other interventions.
  (end quote).

The framework for action is given for each strategic objective separately. It urges that all Member States will have national action plans by the year 2017 that are in alignment with the Global Action Plan. In this framework for each objective is given a "potential measure of effectiveness", for example for objective "improve awareness and understanding of antimicrobial resistance" the measure of effectiveness is "extent of reduction in global human consumption of antibiotics (with allowance for the need for improved access in some settings), and reduction in the volume of antibiotic use in food production." The framework is a very detailed map of "things to do" on each objective and has divided the tasks in three groups: "Things to do" for Member States, for WHO Secretariat and for International and National partners (World Health Organization. 2015).

3 COOPERATION AND COLLABORATION

The Global Action Plan is making it very clear that to achieve the set goals there is a need for "One Health" approach ((World Health Organization. 2015). This means a cross sectorial and collaborative approach to improve health by risk prevention and mitigation that is influenced by humans, animals and their various environments (One Health Global Network. 2017). The report of the WHO secretariat from the sixty-ninth world health assembly "Global action plan on antimicrobial resistance" is amongst others giving an update on what actions have been taken and who has been contributing. Involved in this process are the Member States of the WHO, governments and institutes, FAO and OIE, WHO's Expert Committee on Selection and Use of Essential Medicines, World bank, in other words a wide variety of participants. WHO is coordinating and has formed several advisory bodies, for example STAG, a high level Steering Group and Secretariat's Global Technical Coordinating Group (WHO sixty-ninth world health assembly.2016).

One significant step in this process has been the creation of the first World Antibiotic Awareness Week (16–22 November 2015) and this will become a yearly event. The purpose is to

raise awareness of AMR amongst public, health and agriculture professionals and policy makers (WHO sixty-ninth world health assembly.2016).

Cooperation and collaboration between the mentioned actors is on many different levels: Information, advice and expertise sharing is one of the main areas at the moment (WHO sixty-ninth world health assembly.2016).

Research and development is a major part too in the combat against AMR. Working together with academic partners and pharmaceutical institutes which includes pharmaceutical industries, towards developing new antimicrobial drugs is one of the elements of plan of action (Global Action Plan on Antimicrobial Resistance. 2015).

One thing I want to mention from the report of the WHO sixty-ninth world health assembly is that according to this report from May 2016, not all Member States have yet provided a National Action Plan, amongst them Finland and Kenya (WHO sixty-ninth world health assembly.2016).

4 RESOURCES AND POLICY IMPLEMENTATION

Parts of the available or needed resources and implementations are already mentioned in Chapter three. So now I focus on the financial resources. Dr Marc Sprenger, Director Antimicrobial Resistance Secretariat is presenting that if no action against AMR is taken the costs will be high. Between now and the year 2050, AMR could take up to10 million deaths every year and a GDP reduction of 2%-3,5%, economic output loss worldwide between US$ 600-100 trillion (Global Action Plan on Antimicrobial Resistance. 2015).

The budget of WHO for AMR has increased from about five million US$ in 2014-2015 to US$ 53,792,873 for 2016-2017 (Global Action Plan on Antimicrobial Resistance. 2015). According to the lengthy report of the World Bank “Drug-Resistant Infections: A Threat to Our Economic Future (Discussion Draft),” the cost of implementing the strategic objectives of the Global Action Plan is an estimated nine billion US$ yearly (World Bank. 2016).

AMR is not respecting manmade borders. The effectiveness of the Global Action Plan is depending on success globally. Those countries that are lacking financial recourses to implement the strategic objectives will need support from other countries and organisations like WHO and World Bank. Also funding from private sources and non-governmental institutes are available for the fight against AMR. The losses due to AMR are higher than the investments of combatting AMR (Global Action Plan on Antimicrobial Resistance. 2015, World Bank. 2016).

5 NATIONAL LEVEL POLICY / ANTIBIOTIC RESISTANCE

As part of the Dutch National Action Plan on AMR, the Ministries of Health, Welfare and Sport and Economic Affairs wrote “letter to parliament about the approach to antibiotic resistance.” This letter provides insight on health policies and actions on this subject. The earlier mentioned “One Health” approach is their baseline for developing and implementing action. The areas of attention are all where human health is threatened by antibiotic resistant bacteria, so that means in the “One Health” approach: Healthcare, animals, food and environment. In The Netherlands the focus is on healthcare and animal farming (Letter to parliament about the approach to antibiotic resistance (2015).

6 OUTLINE OF THE POLICY OBJECTIVES

The letter outlines a variety of national health policies including international and regional initiatives on cooperation and collaboration. One International cooperation example is that the National Institute for Public Health and the Environment was appointed as WHO Collaborating Centre for Antimicrobial Resistance, Epidemiology and Surveillance. In practice this means providing technical support for WHO Member States in creating and strengthening surveillance of resistant bacteria (Letter to parliament about the approach to antibiotic resistance. 2015).

The Health policy for fighting against antibiotic resistance is covering an extensive area and includes many different participants. The picture hereunder from the same “letter to parliament” gives an illustration of objectives, participants and measure indicator.

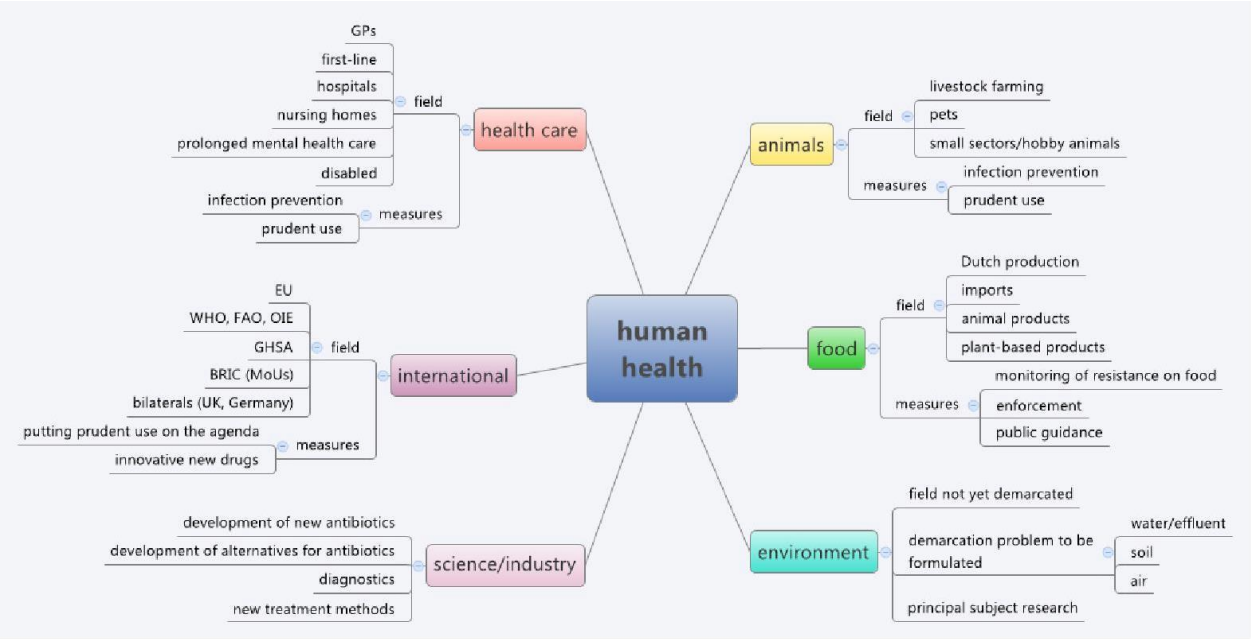

Figure 1. scope of the approach . Picture from the document "Letter to parliament about the approach to antibiotic resistance (2015), Ministries of Health, Welfare and Sport and Economic Affairs

7 COMMUNICATION / POLICY IMPLEMENTATION

For this assignment I decided to take a closer look on the communication aspect mentioned in the "Letter to Parliament". The problem of antibiotic resistance and AMR is a problem that needs the support of the whole society worldwide.

The communication of the following point was selected for the general public, professionals and administrators:

- A National campaign to increase public awareness. Practical tips on prevention included in the campaign material. Providing knowledge on the use and effects of antibiotics. Providing instruction on e.g. food hygiene
- Amongst professional more sharing of knowledge and stimulating new developments
- Facilitating, promoting and coordinating of antibiotic resistance problem solving by administrators

The communication is further tailored to reach e.g. elderly, pet owners, travellers, nurses, hospital directors and so on. The means of communications are for example reading materials in the form of a comic "Luck and Lucy and Auntie Biotica", web portals, video clips and oth-

er infographic material (Letter to parliament about the approach to antibiotic resistance (2015).

8 ASPECTS OF PROMOTING LOVE AND FORGIVENESS

Neither the material used for the Global Health Priority, nor the material of the National Health Policy is using the words love and forgiveness. One could argue though that the work on these Health Priorities is a practical expression of love and forgiveness by caring for human kind and helping those who cannot achieve the set goals alone.

LIST OF REFERENCES

Antimicrobial resistance. WHO Factsheet (2016). Retrieved from http://www.who.int/mediacentre/factsheets/fs194/en/ last accessed 18.03.2017

Global Action Plan on Antimicrobial Resistance (2015). Retrieved from: https://www.oecd.org/tad/events/WHO%20AMR%202015.pdf last accessed 19.03.2017

Letter to parliament about the approach to antibiotic resistance (2015). Retrieved from: file:///C:/Users/Antti/Downloads/Letter%20to%20parliament%20about%20the%20approach%20to%20antibiotic%20resistance.pdf last accessed 19.03.2017

One Health Global Network (2017). Retrieved at: http://www.onehealthglobal.net/what-is-one-health/ last accessed 18.03.2017

World Bank. (2016). "Drug-Resistant Infections: A Threat to Our Economic Future (Discussion Draft)." Washington, DC: World Bank. License: Creative Commons Attribution CC BY 3.0 IGO. Retrieved from: http://pubdocs.worldbank.org/en/527731474225046104/AMR-Discussion-Draft-Sept18updated.pdf last accessed 20.03.2017

World Health Organization. (2014). Antimicrobial resistance: 2014 global report on surveillance. World Health Organization. Retrieved from: http://apps.who.int/iris/bitstream/10665/112642/1/9789241564748_eng.pdf last accessed 20.03.2017

World Health Organization. (2015). Global action plan on antimicrobial resistance. Retrieved from: http://apps.who.int/iris/bitstream/10665/193736/1/9789241509763_eng.pdf?ua=1 last accessed 20.03.2017

WHO sixty-ninth world health assembly (2016). Retrieved from: http://apps.who.int/gb/ebwha/pdf_files/WHA69/A69_24-en.pdf last accessed 19.03.2017