Pavel Cupr, RECETOX, Masaryk University (MU), Czech Republic

WHO TOOL: AIRQ+

Selection of Solutions

COMPONENT:
HEALTH

WHO tool AirQ+

A tool to estimate air pollutant impact on human health

Basic characteristic
- Developed by WHO Regional Office for Europe
- Updated software (AirQ+1.2, May 2018)
- Based on methodologies and concentration-response functions (CRFs) used by most recent scientific epidemiological studies
- User friendly interface

Pollutants handled by AirQ+
- PM2.5
- PM10
- NO2
- O3

Masaryk University (MU)
Czech Republic

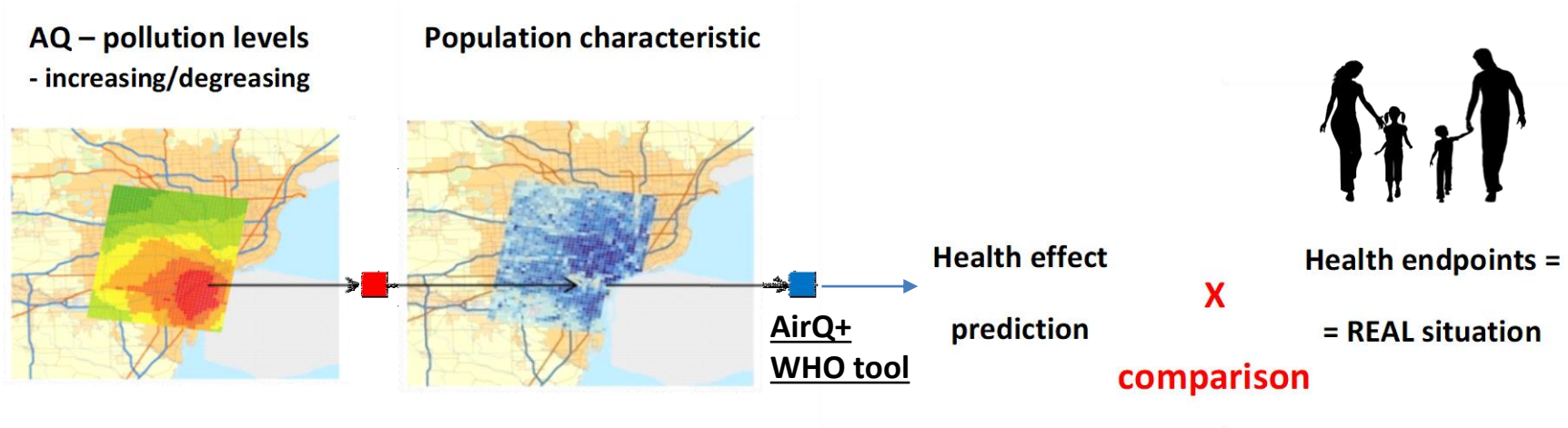
Pavel Čupr
Ondřej Mikeš
Libor Šulc

DOWNLOAD (description, methodology, tutorial, input and output data format, examples):
http://www.euro.who.int/en/health-topics/environment-and-health/air-quality/activities/airq-software-tool-for-health-risk-assessment-of-air-pollution

Horizon 2020
Call: H2020-SC5-2015-one-stage
Topic: SC5-15-2015
Type of action: ERA-NET-Cofund
Grant agreement no: 689443
Proposal acronym: ERA-PLANET

Basic scheme of this approach

Databases – National Institute of Health Information and Statistic



Required input data

- Concentration of pollutants measured or predicted by dispersion models (in GIS)
- Basic population characteristic stratified by age and by selected regions/citi parts

Output = predicted numbers of specific diagnosis in human population

- **To compare with real health endpoints**

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Health endpoints handled by AirQ+ (predicted number of cases)

Prevalence/ incidence

Prevalence of bronchitis in children
Prevalence of bronchitis symptoms in asthmatic children aged 5-14
Incidence of chronic bronchitis in adults
Incidence of asthma symptoms in asthmatic children

Hospital admissions

Hospital admissions: CVD (cardiovascular diseases including stroke)
Hospital admissions, CVD (cardiovascular diseases without stroke)
Hospital admissions: respiratory diseases

RADs/work days lost

Work days lost, working age population only
Restricted activity days (RADs)
Minor restricted activity days (MRADs)

Brno – case study (test bed)

Specific data in urban polygons

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