How can electronic tools effectively support effectiveness evaluation?

Richard Hůlek, Jana Borůvková, Jiří Kalina, Jakub Gregor, Kateřina Šebková

www.genasis.cz
GMP DWH Management Console

• On-line web tool
• Data imports (data providers)
• Approval management (ROGs)

Data Visualizations

• Spatial distribution
• Data availability
• Summary statistics
• Trend analysis
• Data exports
• Regional summaries
GMP DWH
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www.pops-gmp.org
Spatial Distribution

The Map Overview displays a map with selected sampling sites in a given time interval. Sampling sites are marked by colored points distinguishing the individual UN regions. The map can be scaled down or up by using the zooming tool. The map is also interlinked with the data selection module and displays only data included in the selection.
Available Data – Parameters

Matrix: Air
Compound: Polychlorinated biphenyls (PCB) – indicator

Data Set Summary
Items contained in the selected data set:
Matrix: Air
Country: Antigua and Barbuda, Argentina...
Time Range: 1960, 2014
Status: gmp-approved, gmp-validated
Monitoring programme: AMAP, Chemicals in Environment
Data Provider: Africa-EC, Africa-RECETOC...
Compound: Polychlorinated biphenyl (PCB) – indicator
Total number of records: 7699

Download the summary
Available Data – Parameters shows frequency of individual chemical parameters. The more data are available on a site for a parameter, the larger and darker the symbol appears. All symbols are clickable. The user then obtains a summary table for relevant point.

The size and colour of the point correspond to the number of years and occurrence of parameter in a sampling site. The more data are available for a parameter, the larger and darker the symbol appears. Please note that both the colour and size depend on the current data selection (i.e., they may correspond to a different number of years if there is a selection of another set of sites or parameters).
Available Data – Time

Matrix: Air
Site ID: GMP-A-0001863
Site name: Eagle harbor
Country: United States
UN region: WEOG
Year: 1998
Number of parameters: 33

Description
Available Data - Time shows available data over time for a given site in charts. Each site represents a unique combination of a sampling site (x axis) and sampling site-year (y axis).

Green rectangles represent number of years data is available in samples per year within the selected site. As more data available, the larger and darker the rectangle appears. Hover the mouse over a rectangle to get summary table.

Please note that the colour of a rectangle does not correspond to a different number of pollution data, but rather indicates the selection of another set of sites, years, etc.
Available Data – Time shows availability of data (parameters) over time for a given site in charts. Each point (rectangle) represents a unique combination of a number of parameters (x axis) and sampling site-year (y axis).
Summary Statistics

Matrix: * Air
Matrix specification: * Active
Compound: * Hexachlorobenzene (HCB)
Parameter: * HCB
Unit: * pg/m³
Site: -- Choose an option --
Year: -- Choose an option --

Site ID: GMP-A-0001807
Site name: Tam Dao
Country: Viet-Nam
UN Region: Asia and Pacific
Year: 2012
Median: 190 pg/m³
Percentile 5/95: 84.7 – 341.2 pg/m³
No. of values: 3
No. under LOQ: 0
LOC: --
SD: 143.2585

Description
Summary Statistics presents concentrations for one compound, parameter, and year. The output is showing a central point for a compound (geometric mean) and its various standard deviations, percentiles, and given year on selected set of sites.
Available Data – Time presents interval of measured concentrations for one compound in a given matrix and site in individual year. The user selects combination of matrix, compound, parameter, and unit to view relevant concentrations. The output is a horizontal box-whisker chart showing a central point for concentration (median, mean, geometric mean) and its variability (minimum and maximum, standard deviations, percentiles) for each sampling site in a given year on selected set of sites and time interval.
GMP DWH Data Visualizations
Time Series Bar Chart Map
Time Series Bar Chart Map shows concentration changes in bar charts for multiple sites in a map.
### Data Sources Summary

#### Matrix Specification

<table>
<thead>
<tr>
<th>Matrix</th>
<th>Specification</th>
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<tbody>
<tr>
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#### Monitoring Programmes

<table>
<thead>
<tr>
<th>Programmes</th>
<th>First Year</th>
<th>Last Year</th>
<th>Num. of Sites</th>
<th>Num. of Sites</th>
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<tbody>
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<td>GMP UNEP</td>
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<td>MONET</td>
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</tbody>
</table>

### Data Exports:

- Export of All Data Selected
- Sites Summary
- Analytical Methods Summary
- Data Sources Summary
Existing electronic tool - GMP DWH

- useful, practical tool
- one-stop-shop for core matrices
- visibility of data improves
- use of data/outputs - charts, maps, figures in reports/briefs
- support effectiveness evaluation synthesis report/monitoring report

SCRC Czech Republic (RECETOX) is ready to help and make such tool available for the use of Minamata Convention on Mercury!
Data management / support/ helpdesk: 

dwh@pops-gmp.org

Richard Hůlek (head of IT team)  
Jakub Gregor (help desk visualization) 
Jana Borůvková (head of data managers)

Thank you for your kind cooperation!