To be perfectly clear
What pharmaceutical pricing information is publicly available and how to use them

Housekeeping
You can use the Q&A and Chat windows to post questions, comments, information or links
- “Q&A” when sharing with the panellists (only)
- “Chat” when sharing with all panelists and participants

Please keep all comments respectful and constructive
The session is recorded for viewing on demand
- Slides and recording will be shared after the session
Our panellists

Veronika Wirtz
Professor, Department of Global Health
Director, WHOCC in Pharmaceutical Policy
Boston University School of Public Health

Tom Wright
Research and Advocacy Manager
Transparency International

Mihály Fazekas
Assistant Professor, Department of Public Policy
Central European University
Today's session

Brief presentations
• Creating a repository of medicine price databases
• Finding prices in pharmaceutical procurement data: Uses, methods and barriers
• Large-scale analysis of public procurement prices. Examples from Latin America

Q&As
• Improving availability
• Improving accessibility
• Improving usefulness

Summary
Creating a repository of medicine price databases

Prof. Veronika Wirtz, BPharm, MSc, PhD, FISPE
Mahak Kanjolia, Courtney Zambello, Sima Bou Jawde

WHOCC in Pharmaceutical Policy @ Boston University School of Public Health
Repository of medicine price data sources can enhance transparency

- The 2019 WHA resolution “Improving the transparency of markets for medicines, vaccines, and other health products” supports greater public disclosure of medicine prices

- WHO with its member states is working improving transparency

- Publicly accessible repository of medicine price database is one important way to improve transparency
Objectives of our work

1. Conduct a review and analysis and of existing medicine, vaccines and other health product price information sources available via the WHO websites or from other sites available via the internet with focus on governmental and non-commercial data sources.

2. Develop the key standard terminologies and functionality of a WHO medicine and other health product price information source platform
Methods

Data search

44 websites on the WHO website

24 eligible links

49 GSPA-PHI websites

29 eligible links

74 surveys received

43 eligible links

6 links excluded (duplication or no price)

90 eligible data sources
Main variables

- National or Global website
- Country Name
- World Bank Income Classification
- WHO Region
- Product basket
- Price type
- Currency
- Year of price information
- Accessibility of Website
- Method of Data capture
Data cleaning and analysis

Standardization of terminology based on the definitions from the Pharmaceutical Pricing and Reimbursement Information Glossary*:

- Manufacturer net price
- List price
- Wholesaler price
- Retail price
- Tender price (Government/UN organization/International Org.)
- Reimbursement price
- Government controlled retail price
- Government price at health facility

*WHO Collaborating Centre for Pharmaceutical Pricing and Reimbursement Policies: Glossary of pharmaceutical terms.
Most data sources are from high-income country

Results

<table>
<thead>
<tr>
<th>World Bank Income Classification</th>
<th>Database Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Income</td>
<td>0</td>
</tr>
<tr>
<td>Lower-Middle Income</td>
<td>16</td>
</tr>
<tr>
<td>Upper-middle Income</td>
<td>21</td>
</tr>
<tr>
<td>High Income</td>
<td>41</td>
</tr>
<tr>
<td>Global</td>
<td>12</td>
</tr>
</tbody>
</table>
Most data sources were from the WHO European Region (EUR)
Retail and reimbursement price most frequently reported

- Pharmacy Retail Price: 35
- Reimbursement Price: 31
- Government Controlled Retail Price: 20
- Wholesale price: 16
- Tender award price*: 15
- Manufacturer Price: 6
- Government Health Facility: 3
- List Price: 1
Most data sources are open without registration and searchable.
Discussion

Lack of standardization biggest challenge

• Since the last update of the WHO medicine price repository new data sources have become available

• However, large data gaps remain:
  -> Geographical, sector and price type

• Without knowing the health system and price regulation in a country it is challenging to fully comprehend the data reported

• Benchmarking across data sources is hampered by a lack of standardization of reporting

• New technology allows scraping large amounts of data efficiently

• Untangling the web medicine prices requires resources and harmonized terminology and reporting requirements
Thank you

Acknowledgements:
Dr. Klara Tisocki, WHO and team
FINDING PRICES IN PHARMACEUTICAL PROCUREMENT DATA: USES, METHODS AND BARRIERS

Tom Wright – Research Manager TI Global Health
Our Areas of Work

- Accountability and equity in COVID-19 vaccine prices
- Market indicators for Substandard and Falsified Medicines
- Standardisation for the publication of medicine procurement prices for global analysis and comparison
- Red flags for corruption in procurement of pharmaceuticals
• Whilst imperfect, manually assessing pharmaceutical prices in contracts can for some use cases be an effective method of research.

• Advantages: access to (more detailed) information not on procurement portals. Provides a (smaller scale) route to accountability for contexts without open data infrastructure.

• Barriers: Resource intensive. Difficulties in accessing physical documents. Can be limited in drawing scientific conclusions.
Procurement: Pricing in Open procurement data

- E-procurement and push for transparency has led to the generation of a huge amount of public pharmaceutical pricing data in recent years.

- There are however substantial barriers in using this data, due to lack of standardisation and inadequate methods of reporting.

- This is further compounded by secrecy in pharmaceutical pricing and the prevalent use of framework agreements.
Standardising Pharmaceutical procurement data with OCDS

- The Open Contracting Data Standard, developed by the Open Contracting Partnership, provides a structure of how governments should release information on procurements
- Standardising it this way allows for easier comparison across countries
- OCDS now includes an “extension” that provides guidance on how to properly publish data on pharmaceuticals, including how to show things like dosage form, active ingredients and container type
Large-scale analysis of public procurement prices. Examples from Latin America

Mihály Fazekas
(Central European University and Government Transparency Institute)

Email: FazekasM@ceu.edu
Twitter: @mihaly_fazekas

Main resource
Troves of public procurement transactional data available

While only some countries publish such granular data

And it is often hard to
- collect,
- process and
- standardize
When we do process this data, results are surprising. Price variation within countries is hard to fathom.
Granular government purchasing data allows for probing public procurement policies’ price impacts.

Supplier’s annual market share -> unit price

Figure 6. Partial dependence plot: Supplier annual market share (as ratio)
Granular government purchasing data allows for price policy scenarios.

Low level policy changes such as buying in bulk or avoiding end of year purchasing can reduce prices by 14%.

Figure 7. Summary of total savings associated with each intervention, % unit price decrease, LAC
Question & Answer
As data become the “new oil”, based on your observations, will the demand on pharmaceutical pricing information drive greater availability, particularly in lower income countries?

If not, what do you think are the main barriers to greater availability?
In addition to “stupid passwords”, as Rosling put it, what are the main barriers to access the existing data and how to remove them?

- Passwords? Confidential agreements?
- Discounts and rebates?
- Inconsistent terminologies? Lack of standardizations?
The value of data impinged on its completeness, accuracy, timeliness, and connection to the contexts and purposes. In your view, what is needed to create value for pharmaceutical pricing data?

• Serve what purpose: Transparency/governance; informing policies; research; advocacy?
• Story telling: Visualization? Examples?
Top tips

For data publishers

- **WHO**: Support regional offices to set up price data sources that benefit governments in their procurement decisions

- **Governments**: Create legislation that promote medicine price transparency

- **Civil society**: Conduct consumer price surveys and publish them routinely

For data users

- Mobilize and advocate for harmonization of terminology and reporting

- Share good examples of data sources with other users

- Check data carefully and ask the publisher if in doubt

Veronika Wirtz
Top tips

For data publishers

- Start with simplicity and accessibility (including outreach)
- Listen to those using and wanting to use the data
- Adapt and improve towards regional/global standardization

For data users

- Ask the experts!
- Ask the experts to pool tools and simple guidance for public consumption

Tom Wright
Top tips

For data publishers

- Make item-level unit prices and quantities available
- Assure data quality
- Standardize quantities and units of measures

For data users

- Look out for and gather already available data
- Clean up and process messy data according to state-of-the-art data science methods
- Analyse prices, building both descriptive and explanatory models
Announcements

New reports published

Meeting report
https://apps.who.int/iris/bitstream/handle/10665/348331/9789240038585-eng.pdf

Keeping the 100-year-old promise: making insulin access universal
https://apps.who.int/iris/handle/10665/348384

Webinars

December webinar: TBC
Additional slides
Prices are reported in national currency
Results

Is the pharmacy retail price the one that the customer pays?

- Clear definition missing in many data sources
- Ambiguity even when a definition is provided due to the lack of standardization of terminology related to medicines prices
- Data less meaningful without contextual information
- Important to ask for what purpose and by whom the data source was created