András Incze Éva Kiss Jaime Espín Lou Garrison Zoltán Kaló

METHODOLOGICAL CHALLENGES IN ASSESSING THE HEALTH ECONOMIC IMPLICATIONS OF INTERNATIONAL REFERENCE PRICING: MEASURING ITS IMPACT ON PATIENT ACCESS AND PHARMACEUTICAL INNOVATION

Workshop
Virtual Session May 20th, 2021

The underlying research was financially supported by PhRMA

Disclosure

Akceso Advisors has received unrestricted research funding from the Pharmaceutical Research and Manufacturers of America PhRMA on International Reference Pricing research.

DHBW
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METHODOLOGICAL CHALLENGES IN ASSESSING THE HEALTH ECONOMIC IMPLICATIONS OF INTERNATIONAL REFERENCE PRICING: MEASURING ITS IMPACT ON PATIENT ACCESS AND PHARMACEUTICAL INNOVATION

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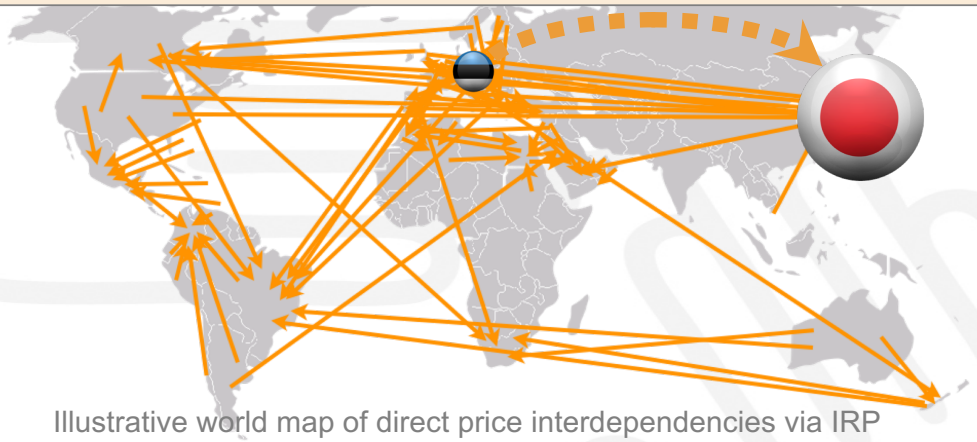
Introduction by András Inczе

The underlying research was financially supported by PhRMA

IRP* of drugs makes the world interdependent

No matter how small a country, it can impact the largest ones

Estonia
even though 100 times smaller, can affect the price in
Japan



Illustrative world map of direct price interdependencies via IRP

*IRP: International Reference Pricing, also called External Reference Pricing

Who are the winners and losers of IRP in your view?

Your answer to Polling Question 1 please – Thank you!

Who are the **winners/losers** of broadening IRP, from amongst patients in

- **lower-income countries (Lower-IC)** and
- **higher-income countries (Higher-IC)?**

1. Only winners in all countries
2. Higher-IC: winners; Lower-IC: losers
3. Lower-IC: winners; Higher-IC: losers
4. Today's patients: winners; tomorrow's patients: losers
5. No winners; patients in both Lower-IC and Higher-IC: losers

Many new drugs are unavailable to patients due to no launch or extended negotiations

Avoiding IRP spillover effect to other, higher-potential markets

Large difference in new drug availability between lower income and higher income countries

Median number of available new drugs in **lower income**:

11 (50%)

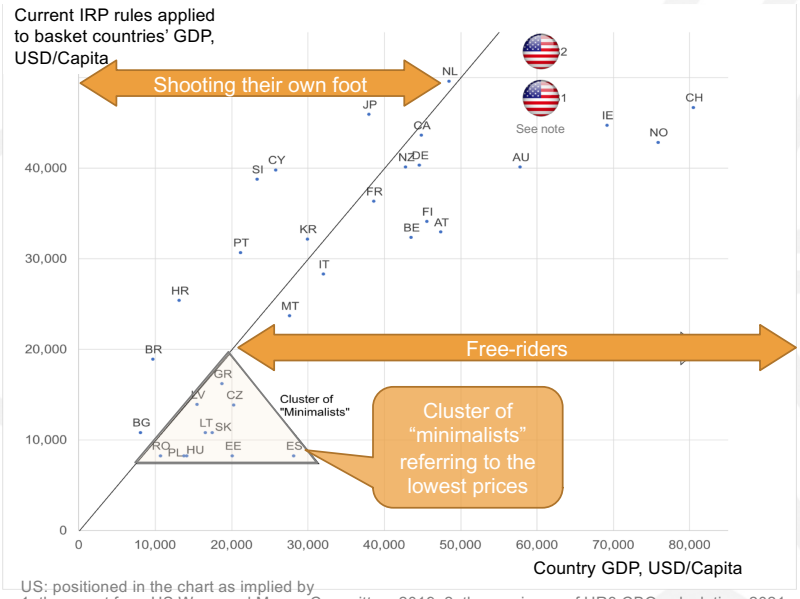
Median number of available new drugs in **higher income**:

18 (82%)

Lower income countries: the 1st tertile of 29 European countries by GDP/capita, average: $14,937
Higher income countries: the 3rd tertile of 29 European countries by GDP/capita, average: $62,893
Availability of drugs as regular treatments in March 2020 in European countries from 22 NCEs registered by EMA in the first half of 2015

Many countries reference to an unlike basket

With the current potential IRP thinking, US would also be among the "free-riders", shooting ultimately their own foot



US: positioned in the chart as implied by
1. the report from US Ways and Means Committee, 2019; 2. the maximum of HR3 CBO calculation, 2021

The imperfections of IRP mean that even free-riders shoot their own foot:

ultimately leading to unavailability of new drugs in the cluster of "minimalists" and others

IRP has unintended adverse impact on access and innovation

For patients in lower-income and higher-income countries alike

Our research has demonstrated:

1. **Strongly restricted patient access** to new therapies **in lower-income** countries – many less wealthy EU and other countries included
2. **Health and lives lost** due to access restrictions even in higher-income countries; in our case study worldwide **over 500,000 QALYs lost for just one medicine**
3. **Innovation is restricted**, as revenues are missing for investment into NME development

A key root cause of patient access restrictions, QALYs loss, lives lost, and less innovation is International Reference Pricing – IRP

U.S. is considering the introduction of IRP

with several initiatives from all political sides

Our research shows: US introduction of IRP is expected to have an adverse impact on innovation and patient access worldwide going forward, including the US

Access and innovation research faces certain challenges

for a cause-effect analysis of IRP – these can be managed

Our research collaboration has addressed the methodological challenges and will share the approach today:

1. Choice and analysis of an access case – Éva Kiss
2. Current IRP policy recommendations and their limitations – Jaime Espín
3. Inequity of access & its research methodology implications – Zoltán Kaló
4. Impact of potential US IRP – methodology issues – Lou Garrison

Thank you for joining!

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Session Presenters

- **Andras Incze**, PhD, MBA, University Lecturer Healthcare Management, **Baden-Wuerttemberg State University, Germany; CEO Akceso Advisors AG, Basel, Switzerland** aincze@akceso.ch
- **Éva Kiss**, Advisors Pricing & Access, **Akceso Advisors AG, Basel, Switzerland** ekiss@akceso.ch
- **Jaime Espin,** PhD, BLaw, MScHE, Professor, **Andalusian School of Public Health, Granada, Spain** jaime@easp.es
- **Zoltan Kalo,** PhD, Professor of Health Economics, **Center for Health Technology Assessment, Semmelweis University/Syreon Research Institute, Budapest, Hungary** zoltan.kalo@syreon.eu
- **Lou Garrison,** PhD, Professor Emeritus, **The Comparative Health Outcomes, Policy, and Economics (CHOICE) Institute Department of Pharmacy; University of Washington, Seattle, WA, USA** lgarrisn@uw.edu

Akceso Advisors AG

Case study of sacubitril-valsartan for congestive heart failure

Workshop:
METHODOLOGICAL CHALLENGES IN ASSESSING THE HEALTH ECONOMIC IMPLICATIONS OF INTERNATIONAL REFERENCE PRICING: MEASURING ITS IMPACT ON PATIENT ACCESS AND PHARMACEUTICAL INNOVATION

Éva Kiss, Akceso Advisors AG

Virtual ISPOR, 20 May 2021

The research was financially supported by PhRMA

Sacubitril-valsartan for congestive heart failure (CHF) was assessed

Main objective

- To assess the impact of access limitations on patient health outcomes on a case example

Scope of the research

- INN: sacubitril-valsartan
- Indication: congestive heart failure (CHF)
- Country scope: 34 European, American and Asia-Pacific countries

Key challenge was to find a non-orphan, innovative retail product

Selection criteria for the medicine:
- Launch time
- Unified prevalence
- For disease with a large patient population
- Retail product
- Availability in countries
- Innovative and unique

Challenges:
To match all the criteria

Estimating the prevalence:
- Country specific data was collected
- Finally the Swedish data was applied to all

Challenges:
Difference in methodology and timing

Baseline of eligible patients determined by the country with the highest share of patients treated

As prevalence may overstate the practically feasible number of patients treatable by a given drug

Estimating QALY impact:
- Systematic literature research in PubMed and Cochrane libraries
- QALY gains ranged from 0.29 to 0.79, simple average applied

Challenges:
Studied drug, condition, QALY reporting, comparator, time horizon in different studies

Treated and eligible patients
per 100,000 inhabitant**:**
- 2019 utilization data by IQVIA
- Population: by Eurostat and World Bank
- Estimation on the number of treated patients per country
- Eligible patients: the country with the highest share of patients treated, as the baseline for all other countries

Challenges:
Data sources

Access limitations cost patient lives

Even for clearly innovative treatments across most advanced healthcare systems

QALYs gained in treated and lost in untreated patients

RESULTS
335,000 QALYs gained
Over 500,000 QALYs lost
This means not only life years but many lives lost

Cumulative one-year revenue loss by lower-level sacubitril-valsartan treatment vs. best-treating large country as baseline:

Over $ 2 bn
Implication: This could suffice for developing one new drug

Suggestions for future similar research

Do's

- Select relevant product for the case
- Match data availability and research objective
- Filter on publications meaningful for the research objective while ensuring no cherry picking
- Ensure critical appraisal of information

Don'ts

- Do not forget to present assumptions and caveats transparently
- Do not aggregate studies with very different methodology

Thank you for your attention!

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METHODOLOGICAL CHALLENGES IN ASSESSING THE HEALTH ECONOMIC IMPLICATIONS OF INTERNATIONAL REFERENCE PRICING: MEASURING ITS IMPACT ON PATIENT ACCESS AND PHARMACEUTICAL INNOVATION

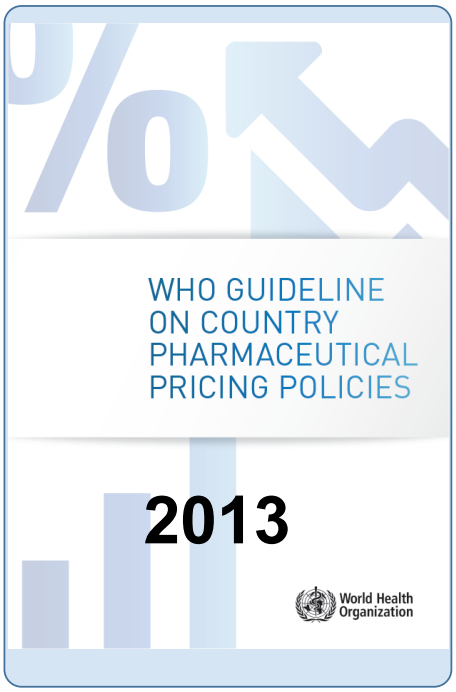
WHO Policy Recommendations on ERP and Practical implications

ISPOR WORKSHOP
Virtual Session 2021

ESCUELA ANDALUZA DE SALUD PÚBLICA
Consejería de Salud y Familias

WHO Collaborating Centre on Integrated Health Services based on Primary Care

Jaime Espín, PhD
Professor
Andalusian School of Public Health



WHO and Pricing Policy Guidelines (2013 & 2020)

- "The primary audience for this guideline is policy-makers and decision-makers responsible for introducing and revising price-management policies to improve access to pharmaceutical products **in countries of all income levels**"
- "This guideline makes **specific recommendations regarding ten pricing policies countries** may choose and adapt according to the objectives, architecture and contexts of their respective health systems.
- "In developing the **recommendations**, the GDG –Guidelines Development Group- **considered the evidence appraised and synthesized in a systematic review commissioned by WHO**"

WHO Recommendations for ERP - 2013

- Countries should consider using ERP as a method for negotiating or benchmarking the price of a medicine.
- Countries should consider using ERP as part of an overall strategy, in combination with other methods, for setting the price of a medicine.
- In developing an ERP system, countries should define transparent methods and processes to be used.
- Countries/payers should select comparator countries to use for ERP based on economic status, pharmaceutical pricing systems in place, published actual versus negotiated or concealed prices, exact comparator products supplied, and similar burden of disease.

Source: WHO Guideline on Country Pharmaceutical Pricing Policies - 2013

WHO Recommendations for ERP - 2020

1. External reference pricing — Section 3.1

Conditional[2] recommendations for the policy

1.A. WHO suggests the use of external reference pricing under the following conditions:
- External reference pricing is used in conjunction with other pricing policies, including price negotiation;
- Adequate resources and skilled personnel are available to implement external reference pricing;
- Selection of reference countries or jurisdictions is based on a set of explicitly stated factors;
- Reference prices are obtained from verifiable data sources;
- Reference prices have accounted for all forms of discounts, rebates and taxes with a high degree of confidence; and
- Methods for determining prices follow a transparent and consistent process.

1.B. WHO suggests that countries undertake regular price revisions at pre-specified frequency when using external reference pricing.

1.C. WHO suggests that countries monitor the impacts of implementing external reference pricing on price, affordability and access to medicines.

Source: WHO Guideline on Country Pharmaceutical Pricing Policies - 2020

Methodological recomendations (I) – Selection of the countries

Country	Price setting	Products - ERP	Countries	Price used	Criteria	Sources of information
Brazil	Agência Nacional de Vigilância Sanitária (ANVISA)	On patent (Category I)	USA, Canada, Portugal, Spain, France, Italy, Greece, New Zealand and Australia	Ex-factory	Minimum	Websites;
Czech Republic	SUKL(State Institute for Drug Control)- maximum prices/reimbursement prices/ Health funds - price negotiations	Reimbursable	For pricing: Estonia, France, Italy, Lithuania, Hungary, Portugal, Greece, and Spain For reimbursement: all EU countries	Ex-factory	Average	Websites; Manufacturer
Hungary	National Health Insurance Fund Administration (OEP)	Reimbursable (new active substances)	Countries in the European Union and European Economic Area	Ex-factory	Minimum	Websites; Manufacturer
Iran	Pricing Commission	On-patent and imported	Greece, Spain, Turkey and the country of origin	Ex-factory and wholesaler	Minimum	Manufacturer
Jordan	Pricing committee of the Jordan Food and Drug Administration (FJDA)	All products	Selected European countries (UK, France, Spain, Italy, Belgium, Greece and the Netherlands), the export price to Kingdom of Saudi Arabia, and the country of origin	Ex-factory price of the reimbursed price	Median	Websites; Manufacturer
Lebanon	Pricing Committee - MoH	On- and off-patent products	Region: Jordan, Kingdom of Saudi Arabia, Kuwait, Sultanate of Oman, United Arab Emirates, Bahrain and Qatar. Comparative: France, England, Belgium, Switzerland, Italy, Spain and Portugal	All	Minimum	Manufacturer
South Africa	Pharmaceutical Economic Evaluations (PEE) Directorate	On- and off-patent products	Australia, New Zealand, Spain, and Canada	Ex-factory and import	Minimum	Manufacturer
Sultanate of Oman	Directorate General of Pharmaceutical Affairs & Drugs Control	All products	Gulf Cooperation Council (GCC) countries: Kingdom of Saudi Arabia, United Arab Emirates, Bahrain, Kuwait, and Qatar	Import price CIF (cost, insurance & freight)	Minimum	Manufacturer
United Arab Emirates	Committee - MoH	All products (some exceptions)	Country of origin and Gulf Cooperation Council (GCC) countries: Kingdom of Saudi Arabia, Kuwait, Bahrain, Qatar, and the Sultanate of Oman	Ex-factory and import	Minimum	Websites; Manufacturer

Source: Espin J, et al. WHO/HAI project on medicine prices and availability-Working paper 1: external reference pricing (2011 May)

Methodological recomendations (II) – Adjusting price per GDP

- After adjusting for GDP per capita, **prices are higher in countries with lower income levels and regulated drug prices** (for example: Spain, Portugal and Greece) than in countries with high income levels (Japan, Germany and the UK) (Prof. Danzon):

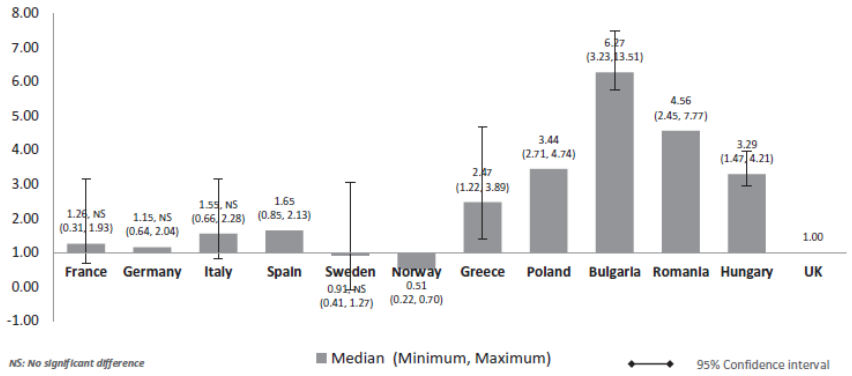
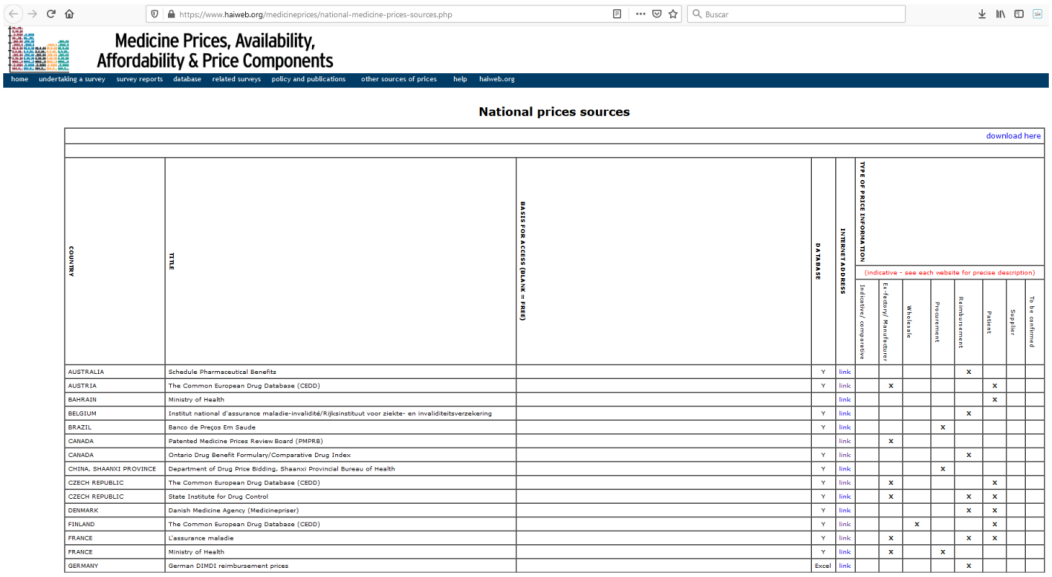


Figure 2. Relative cost ratios: adjusted using nominal GDP per capita (UK reference = 1).

Source: K. E. Young, I. Soussi & M. Toumi (2017) **The perverse impact of external reference pricing (ERP): a comparison of orphan drugs affordability in 12 European countries**. A call for policy change, Journal of Market Access & Health Policy, 5:1, 1369817

Methodological recomendations (III) - Reference prices are obtained from verifiable data sources



https://www.haiweb.org/medicineprices/national-medicine-prices-sources.php

Limitations of price databases

- **It is difficult to find transaction prices**; the prices that countries have access to are often not real prices, but virtual list/catalogue prices.
- **Price are settings in different forms**: ex-factory, with or without VAT,….
- **Not all the formulations and package size are always the same.**
- **Local language**…

Thank you very much for your attention.

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Methodological Questions of Measuring Inequity in Patient Access

ISPOR Workshop on Methodological Challenges in Assessing the Impact of Potential U.S. International Reference Pricing

Zoltán Kaló

Professor of Health Economics

1) Center for Health Technology Assessment, Semmelweis University

2) Syreon Research Institute

Today's research for tomorrow's health

Methodological problem

- Limited patient access to new therapies in lower income countries is an externality of international reference pricing of pharmaceuticals.
- This market failure cannot be addressed at the level of individual countries, global policy solution is needed.
- Global policies are rarely initiated without understanding the magnitude of the problem.
- **How can global inequity in patient access be measured?**

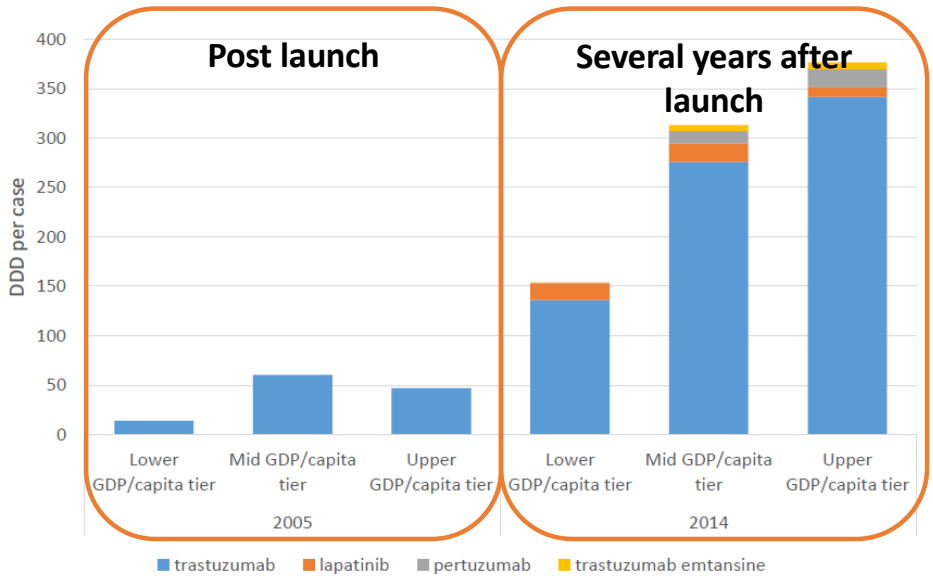
Common solution

- Limited patient access has been traditionally described by
  1. delays in time to reimbursement (i.e. time to positive drug listing)
  2. comparison of reimbursement status

  in different countries
- **Can comparison of reimbursement properly express inequity in patient access?**

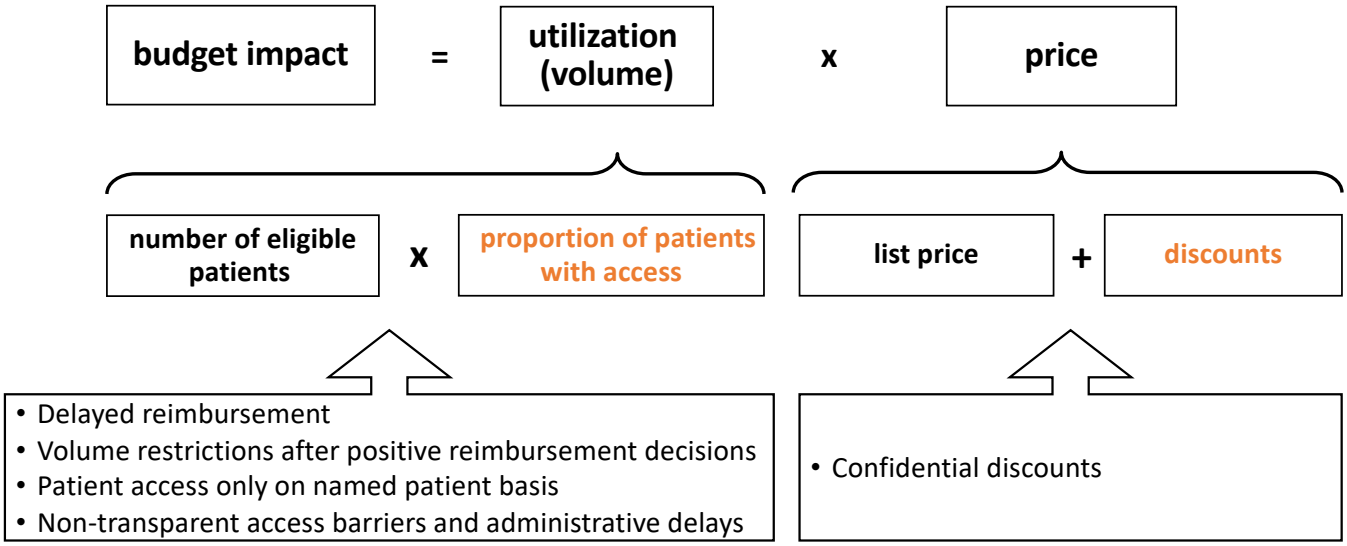
Answer: NO

Several years after launch greater utilization differences of HER2+ medicines across European countries with different economic status



Source: Jönsson B, Hofmarcher T, Lindgren P, Wilking N. Comparator report on patient access to cancer medicines in Europe revisited. IHE Rep. 2016;4:228.

Options to manage the affordability of pharmaceutical expenditure by rationing health care in lower income countries



Hidden access restrictions to reimbursed medicines in lower income European countries

1. **prescribers**
   - financing protocols to allow prescriptions only for subgroup of patients
   - volume limit for individual prescribers or health care institutions
   - volume limit for diagnostics
   - second-line reimbursement only after the first-line therapy fails
   - prescription is limited to selected centers or named patient basis (i.e. complex administrative process)
2. **patients**
   - waiting lists for medicines
   - limited access or waiting lists for necessary diagnostics, outpatient visits
   - limited treatment duration
   - significant copayment for biological medicines and/or related services (e.g. diagnostics)
   - significant travel time and costs to prescribing centers
3. **manufacturers**
   - delayed reimbursement
   - price-volume agreement

Inotai A, Tomek D, Niewada M, Lorenzovici L, Kolek M, Weber J, Kurrat AK, Kiss EV, Kaló Z. Identifying Patient Access Barriers for Tumor Necrosis Factor Alpha Inhibitor Treatments in Rheumatoid Arthritis in Five Central Eastern European Countries. Frontiers in Pharmacology. 2020. 11. 845.

More research is needed

- Annual utilization of pharmaceuticals per million population is appropriate measure of inequity in patient access:
- Complication factors
  1. multiple indications
  2. utilisation through special reimbursement schemes
     - prospective payment for hospital use
     - central procurement
     - named patient basis

Report on Access to Health Services in the European Union

- European Union report published on 3 May 2016 (ISSN 2315-1404 / ISBN 978-92-79-57112-1)
- Expert Panel members: Pedro Barros, Margaret Barry, Werner Brouwer, Jan De Maeseneer, Fernando Lamata, Lasse Lehtonen, Martin McKee, Sarah Thomson
- External experts: Michele Cecchini, Sara Willems

Key recommendation for pharmaceutical policies:

- "Creating greater **transparency around** the costs of pharmaceutical products and **the price of medicines** would provide better grounds for assessing affordability, **equitable access**, fairness in pricing and incentives to develop new medicines."

???

Suggestions for future research

Do's	Don'ts
• More research on hidden access barriers in lower income countries • Involvement of patient organizations into research on patient access • Validation of findings from multiple sources, including pharmaceutical companies	• Comparison of "time to reimbursement" or "reimbursement status" of new medicines underestimates the global inequity in patient access • Research on limited patient access without involvement of experts from lower income countries

Methodological Challenges in Assessing the Impact of Potential U.S. International Reference Pricing

Lou Garrison, PhD, Professor Emeritus
The CHOICE Institute, School of Pharmacy, University of Washington Seattle WA, USA

Workshop:
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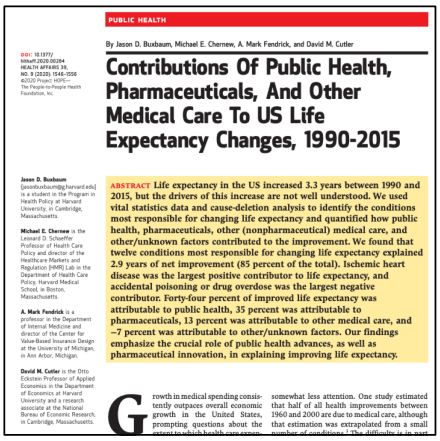
April 5, 2021



PUBLIC HEALTH

By Jason D. Buxbaum, Michael E. Chernew, A. Mark Fendrick, and David M. Cutler

Contributions Of Public Health, Pharmaceuticals, And Other Medical Care To US Life Expectancy Changes, 1990-2015

ABSTRACT Life expectancy in the US increased 3.3 years between 1990 and 2015, but the drivers of this increase are not well understood. We used vital statistics data and cause-deletion analysis to identify the conditions most responsible for changing life expectancy and quantified how public health, pharmaceuticals, other (nonpharmaceutical) medical care, and other/unknown factors contributed to the improvement. We found that twelve conditions most responsible for changing life expectancy explained 2.9 years of net improvement (85 percent of the total). Ischemic heart disease was the largest positive contributor to life expectancy, and accidental poisoning or drug overdose was the largest negative contributor. Forty-four percent of improved life expectancy was attributable to public health, 35 percent was attributable to pharmaceuticals, 13 percent was attributable to other medical care, and –7 percent was attributable to other/unknown factors. Our findings emphasize the crucial role of public health advances, as well as pharmaceutical innovation, in explaining improving life expectancy.

Pharmaceuticals account for 35% of improved US life expectancy—of 3.3 years—from 1990-2015

EXHIBIT 3

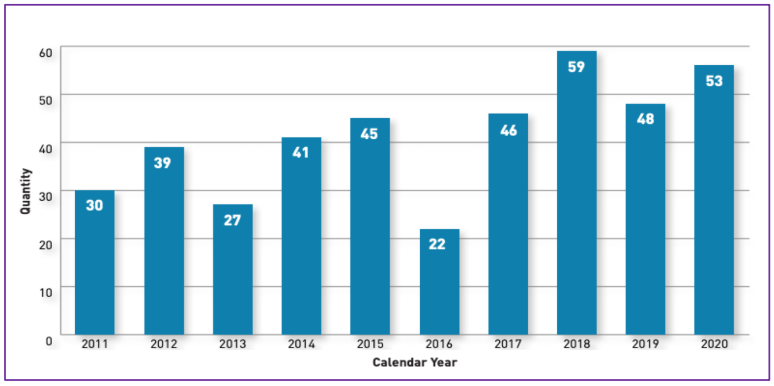
Estimated impact of pharmaceuticals, other medical care, and public health on changes in US mortality, by cause of death, 1990–2015

Categories/ causes of death	Contribution to mortality reduction (%)	Contribution to mortality changes (%): Public health	Pharma-ceuticals	Other medical care	Other/ unexplained	Comments
TOTAL						
All causes	85	44	35	13	–7	

Value =330,000,000 x 1.155 life years x $150,000/QALY = **$57.2 Trillion!**

Annual Drug R&D: $200 Billion => $57.2 Trillion/$200 Billion = 286 Years!
OR
50 years of R&D at $200B/Yr => $57.2 T/$10 T = 6:1 return

CDER's Annual Novel Drug Approvals, 2011-2020



New drugs:
- **High risk/high reward**
- **Global public goods**
- **Few annually**
- **Productivity flat over time**
- **Mix constantly changing**

- 21 of 54 (40%) as first-in-class
- **31 of 53 (58%) for rare or orphan diseases**
- 17 of 53 (32%) as Fast Track
- 22 of 53 (42%) as breakthrough therapies
- 30 of 53 (57%) were designated Priority Review

International Journal of Health Care Finance and Economics, 3, 183–205, 2003

Differential Pricing for Pharmaceuticals: Reconciling Access, R&D and Patents

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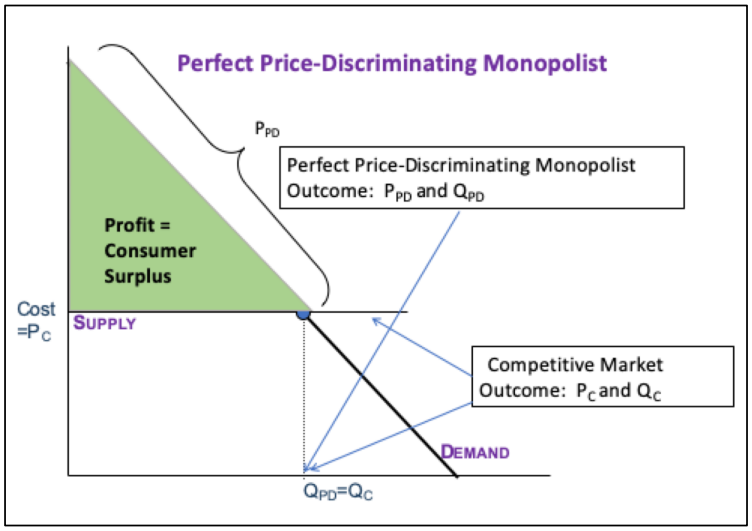
The Wharton School, University of Pennsylvania
ADRIAN TOWSE atowse@ohe.org
Office of Health Economics

Economists have long argued for global differential pricing.

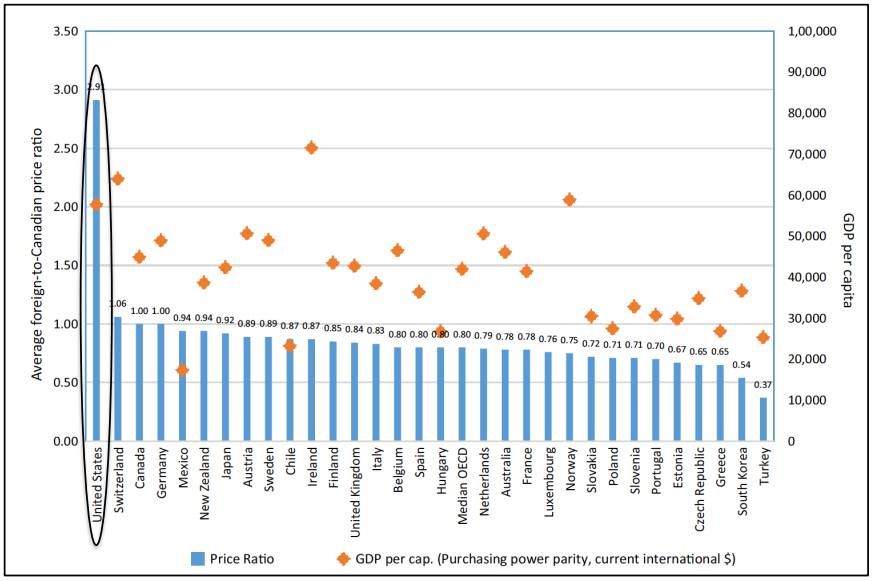
Has equity implications as well.



Drug Prices: U.S. vs. ROW

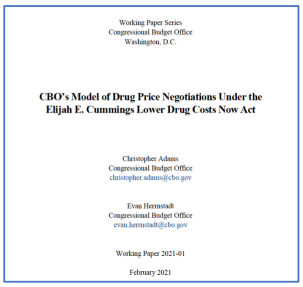
(Average Foreign-to-Canadian Price Ratios for Patented Drugs by Country, 2016)

US list price 3x higher
Low correlation with GDP per capita



Source: Danzon, PharmacoEconomics, 2018

U.S. Considering International Reference Pricing



Working Paper Series
Congressional Budget Office
Washington, D.C.

CBO's Model of Drug Price Negotiations Under the Elijah E. Cummings Lower Drug Costs Now Act

Christopher Adams
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Evan Herrnstadt
Congressional Budget Office
evan.herrnstadt@cbo.gov

Working Paper 2021-01

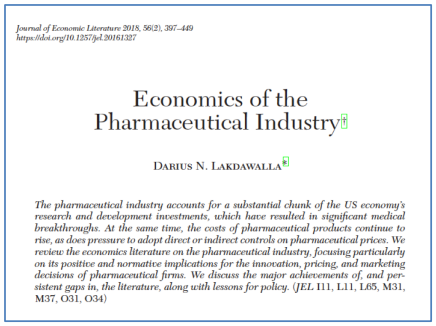
February 2021

H.R. 3—U.S. House of Representatives passed the "Elijah E. Cummings Lower Drug Costs Now Act" Dec. 2019.

1. Lower patient out-of-pocket costs
2. Adjust prices for recent inflation
3. Sec. of HHS negotiates drug prices based on **"International Price Index." Not exceed 120% of average price among six countries.**
4. Negotiations would reduce prices by **57 percent to 75 percent**, relative to current prices
5. **CBO projects $456 billion in savings over 10 years. And 8 fewer drugs in 2020-2029.**

Achieving Optimal Innovation— The Goal of Dynamic Efficiency

- **Dynamic Efficiency**—eliciting the **optimal rate of innovation over time.**
  - **Key Issue: What is the lifetime revenue elasticity of innovation? How responsive is innovation to the "expected market size"?**
- **Dubois, de Monzon, Scott-Morton (2015) estimate: 0.23→**
  - "on average, $2.5 billion is required in additional revenue to support the invention of one new chemical entity."



Journal of Economic Literature 2018, 56(2), 397–449
https://doi.org/10.1257/jel.20161327

Economics of the Pharmaceutical Industry†

Darius N. Lakdawalla‡

The pharmaceutical industry accounts for a substantial chunk of the US economy's research and development investments, which have resulted in significant medical breakthroughs. At the same time, the costs of pharmaceutical products continue to rise, as does pressure to adopt direct or indirect controls on pharmaceutical prices. We review the economics literature on the pharmaceutical industry, focusing particularly on its positive and normative implications for the innovation, pricing, and marketing decisions of pharmaceutical firms. We discuss the major achievements of, and persistent gaps in, the literature, along with lessons for policy. (*JEL* I11, L11, L65, M31, M37, O31, O34)

- Acemoglu and Linn (2004) find: "... that innovation responds to expected market size as theory predicts ... **a 1 percent increase in expected market size is associated with a 4 percent to 6 percent increase in the number of new molecular entities** entering the market."

Government Scorekeepers Likely Underestimate the Impact of Lower Drug Costs Now Act (H.R.3) on Investment in Innovative Medicines: Brief

A study for the Pharmaceutical Research and Manufacturers of America (PhRMA)

By Kirsten Axelsen, Rajini Jayasuriya
April 2021

CRA Charles River Associates

"… there is no sufficient analogue to estimate the effect of this policy and the CBO likely underestimates the true impact of H.R.3 on future incentives for innovation. Therefore, policymakers have not been provided with sufficiently reliable estimates to adequately assess the risk of such a decision."

Methodological Challenges:

- Poor data (from smaller markets) on impact of market size of R&D.
- Need to consider different drugs differently in terms of areas of high risk and high unmet need
- Consider changes in drug development portfolio, e.g., role of small biotech vs. big pharma
- Impact on ex-US prices
- Impact on population health

" … we find that implementation of international reference pricing in the United States would:

- Reduce earnings by 62% on average for impacted companies, with one third (32%) of affected companies having reductions larger than 95% of earnings (using conservative assumptions about the impacts on. prices) …
- Reduce by 90%+ the number of medicines developed by small and emerging biotechs -- 61 fewer medicines over 10 years. …
- Eliminate nearly 200,000 biopharmaceutical industry jobs, and nearly 1 million jobs across the economy."

Key Take-Away Messages

1. Using IRP in the U.S. is an extremely uncertain and risky strategy in terms of potential adverse impact on global R&D.

2. It could have serious adverse long-term consequences on global health.

3. Promotion of effective differential global pricing based on differential value-based pricing would be a preferable strategy.

4. Yes, there are pricing distortions and imperfections in the U.S. that need serious policy attention.

Thanks for your interest and attention!

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What would be the impact of US IRP on innovation in your view?

Your answer to Polling Question 2 please – Thank you!

CBO projects that HR3 IRP would **reduce the number of NMEs by 8** over this decade, down **from a total of otherwise 300** NMEs.

How much do YOU think the reduction will be?

A. 0 - 8	B. 9 - 16	C. 17 - 24	D. 25 - 48	E. 49 +

Thank you!

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