Access to Global Health Technologies

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Centre international de TB McGill

McGill International TB Centre

McGill | GLOBAL HEALTH PROGRAMS

Technologies: big part of the global health landscape today

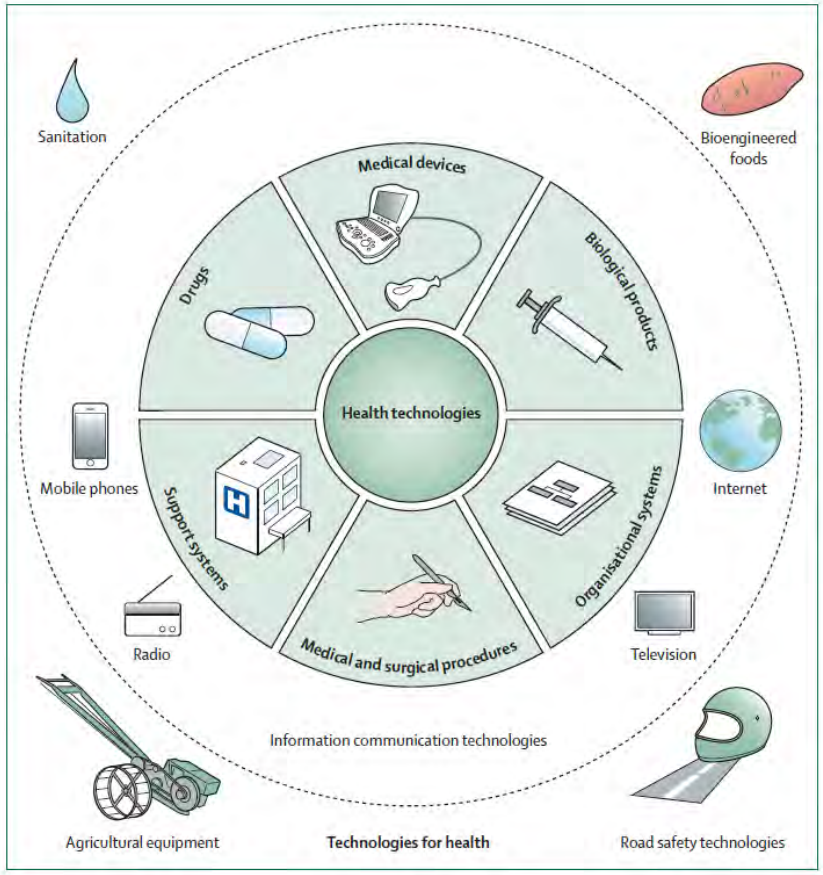
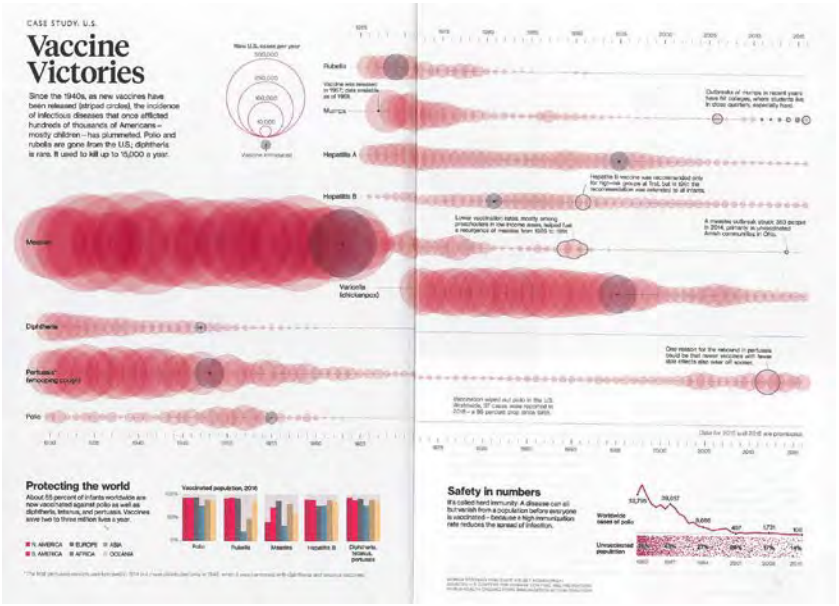


Figure 1: Overview of technology for global health

Imperial College London
THE LANCET
Technologies for global health



https://www.nationalgeographic.com/magazine/2017/11/vaccine-health-infection-global-children/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SYLVANIA 300
SUNDAY, SEPTEMBER 27, 2015
GET TICKETS
OR CALL
844.292.6778
vital signs
with Dr. Sanjay Gupta
WHO: Trials show new Ebola vaccine is 'highly effective'
By Laura Smith-Spark, CNN
Updated 12:33 PM ET, Mon August 3, 2015
Back to School, Back to Germs
BUY NOW
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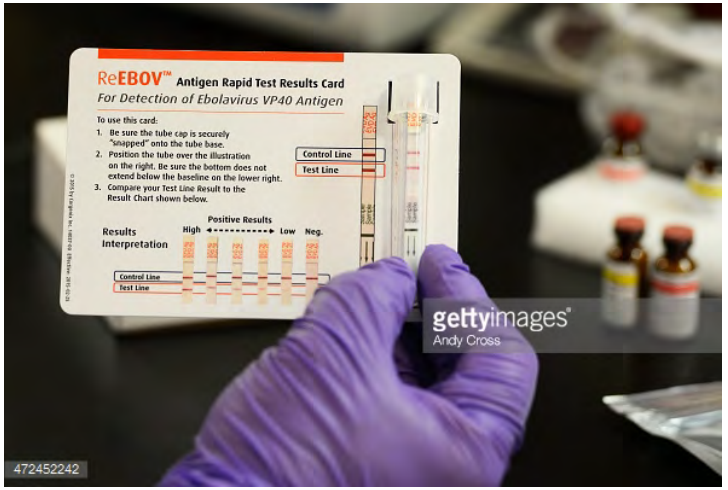
Ebola outbreak
WHO: New Ebola vaccine is 'highly effective'
Ebola found in U.S. doctor's eye


GeneXpert
Xpert® Ebola
Cepheid


ReEBOV™ Antigen Rapid Test Results Card
For Detection of Ebolavirus VP40 Antigen
To use this card:
1. Be sure the tube cap is securely "snapped" onto the tube base.
2. Position the tube over the illustration on the right. Be sure the bottom does not extend below the baseline on the lower right.
3. Compare your Test Line Result to the Result Chart shown below.
Control Line
Test Line
Results Interpretation
Positive Results
High
Low
Neg.
gettyimages
Andy Cross
472452242

In global health, this is what we really care about

Good products get developed

They undergo adequate evaluation

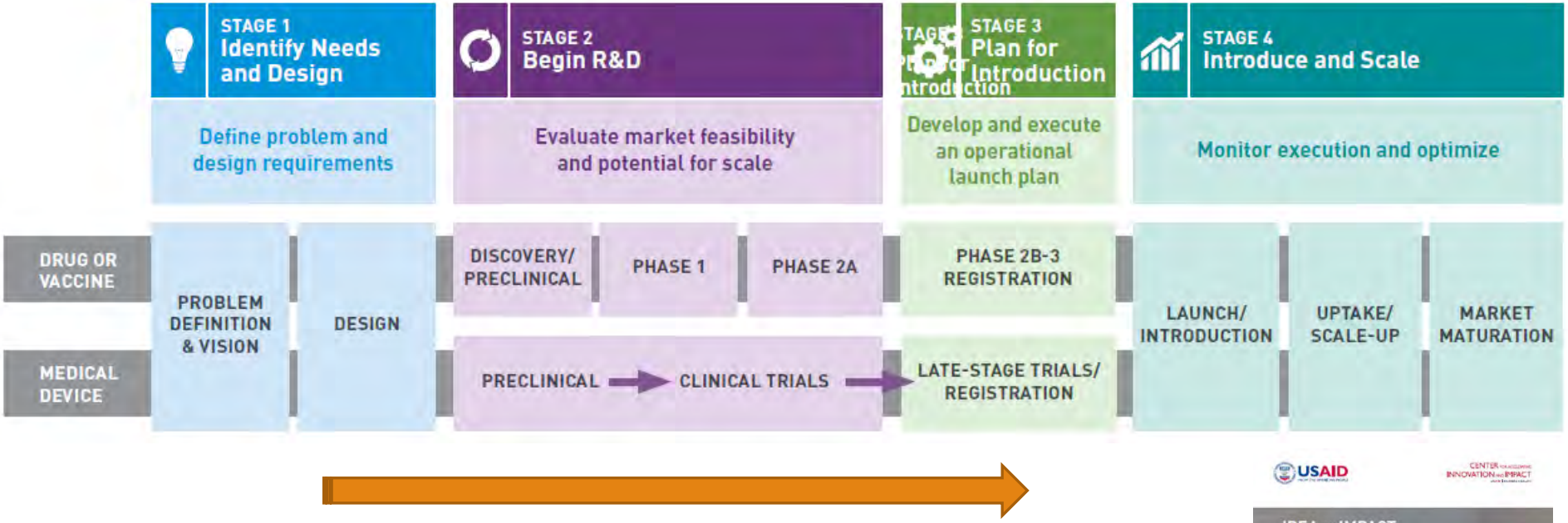
Evidence-based policies get formulated

Products and policies get implemented in countries

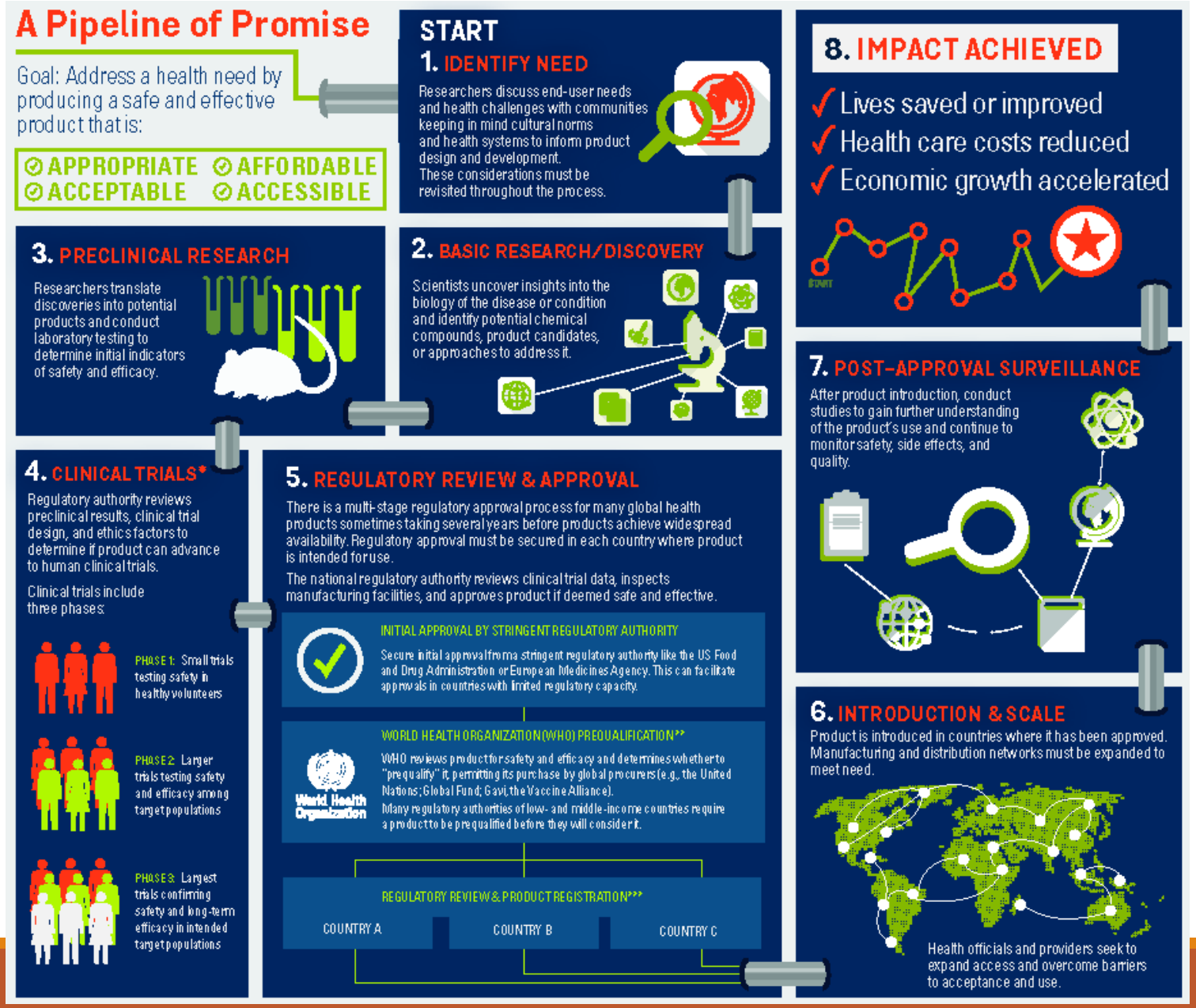
Impact is seen on disease burden

This could be a single long value chain…

Single, linear value chain



In reality, it is messy



http://www.ghtcoalition.org/

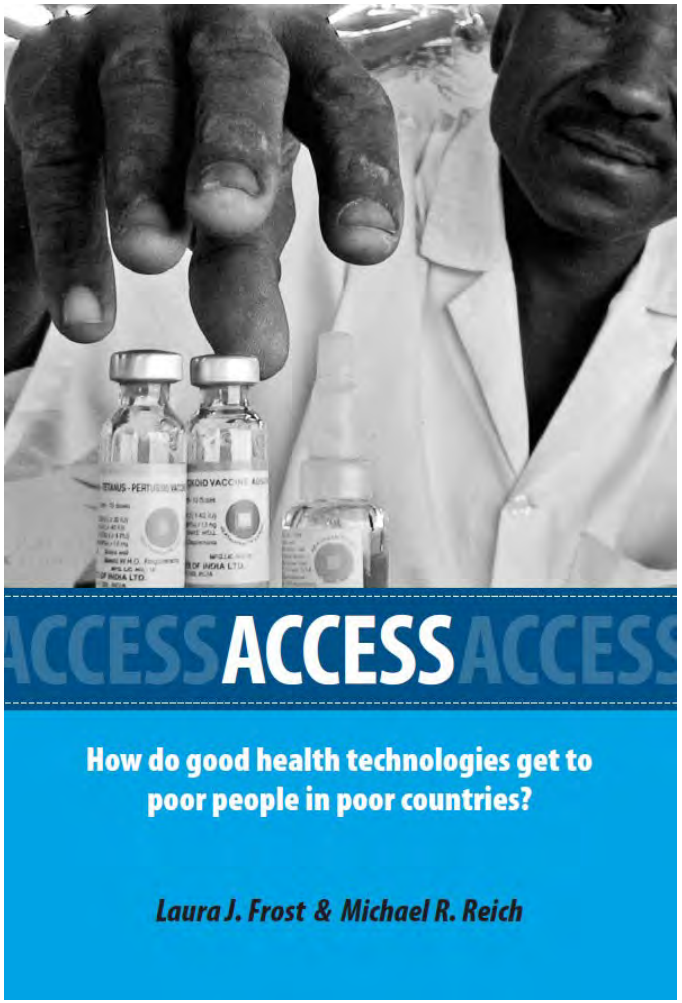
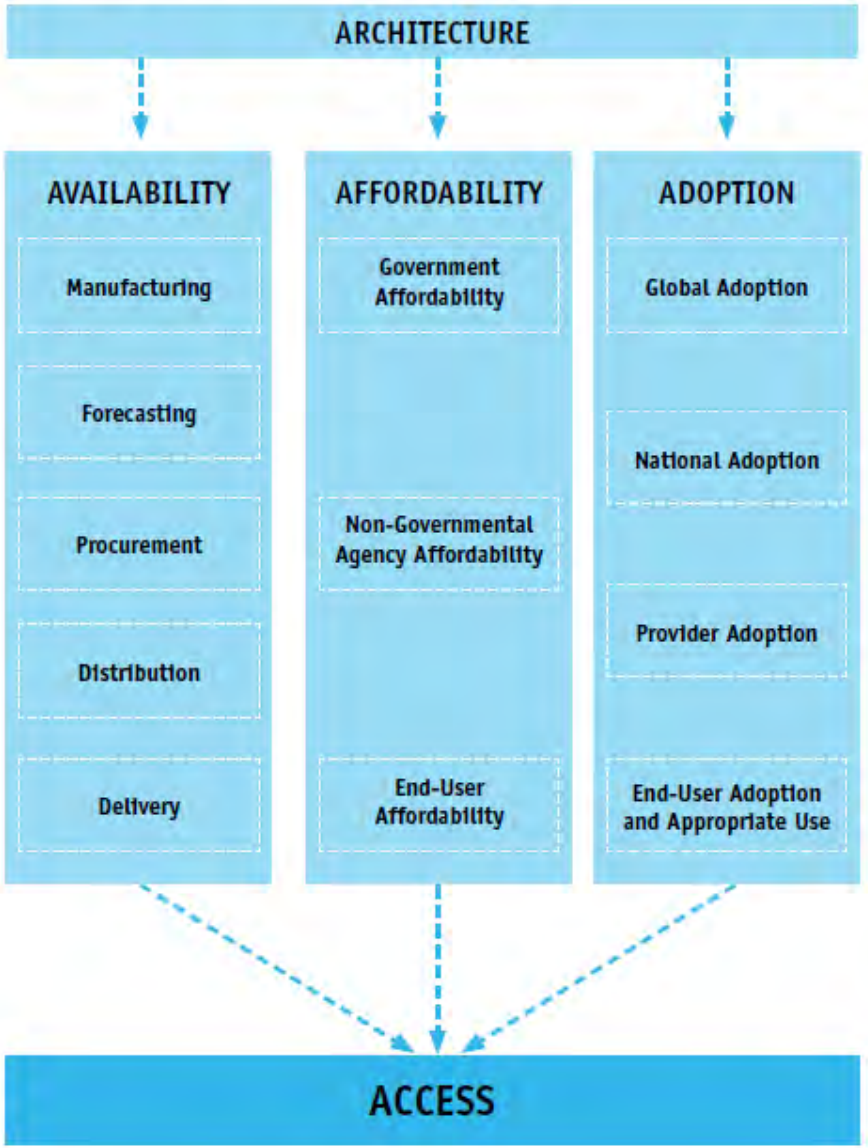


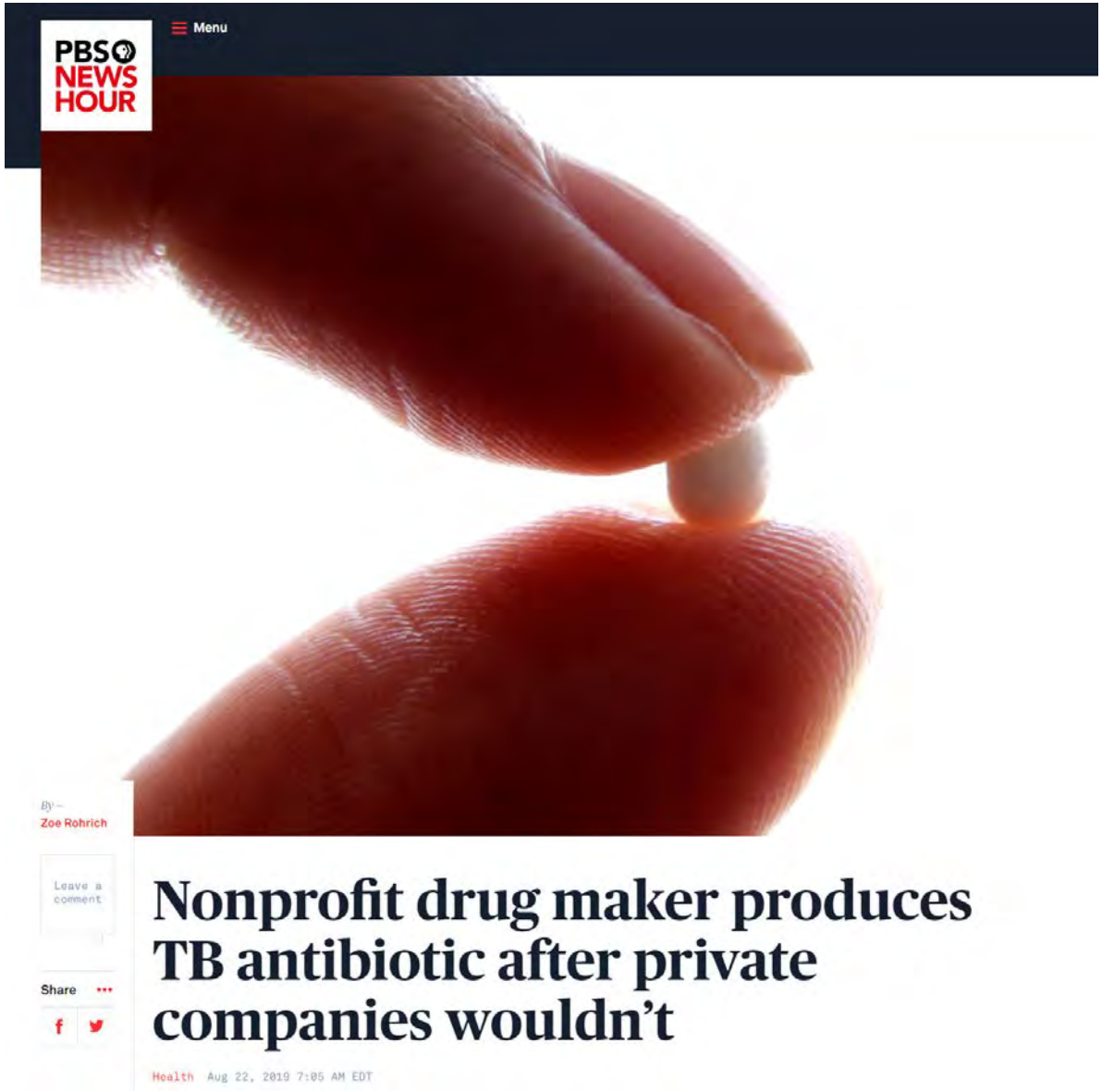
Figure 2.1 | The access framework



AVAILABILITY

TB Care Today

https://naturemicrobiologycommunity.nature.com/channels/315-in-the-news/posts/20144-in-desperate-need



https://www.pbs.org/newshour/health/nonprofit-drug-maker-produces-tb-antibiotic-after-private-companies-wouldnt

Why are we still using old tools in TB?

Broken pharma R&D model

Insufficient investment (money, time)

Academics and funders are risk-averse

Inadequate industry-academia partnerships

Market forces and decisions

Regulatory hurdles

Even when new tools are developed, access is a big issue

eLIFE elifesciences.org

FEATURE ARTICLE

POINT OF VIEW

Tuberculosis innovations mean little if they cannot save lives

Abstract The past decade has seen the emergence of new diagnostics and drugs for tuberculosis, a disease that kills over 1.8 million people each year. However, these new tools are yet to reach scale, and access remains a major challenge for patients in low and middle income countries. Urgent action is needed if we are committed to ending the TB epidemic. This means raising the level of ambition, embracing innovation, increasing financial investments, addressing implementation gaps, and ensuring that new technologies reach those who need them to survive. Otherwise, the promise of innovative technologies will never be realized.

DOI: 10.7554/eLife.25956.001

MADHUKAR PAI* AND JENNIFER FURIN

HUFFPOST

CANADA LIVING

Featuring fresh takes and real-time analysis from HuffPost's signature lineup of contributors

Dr. Madhukar Pai Become a fan
Professor & Director of Global Health, McGill University

Jennifer Furin, MD., PhD Become a fan
Infectious diseases specialist and medical anthropologist currently a lecturer at Harvard Medical School

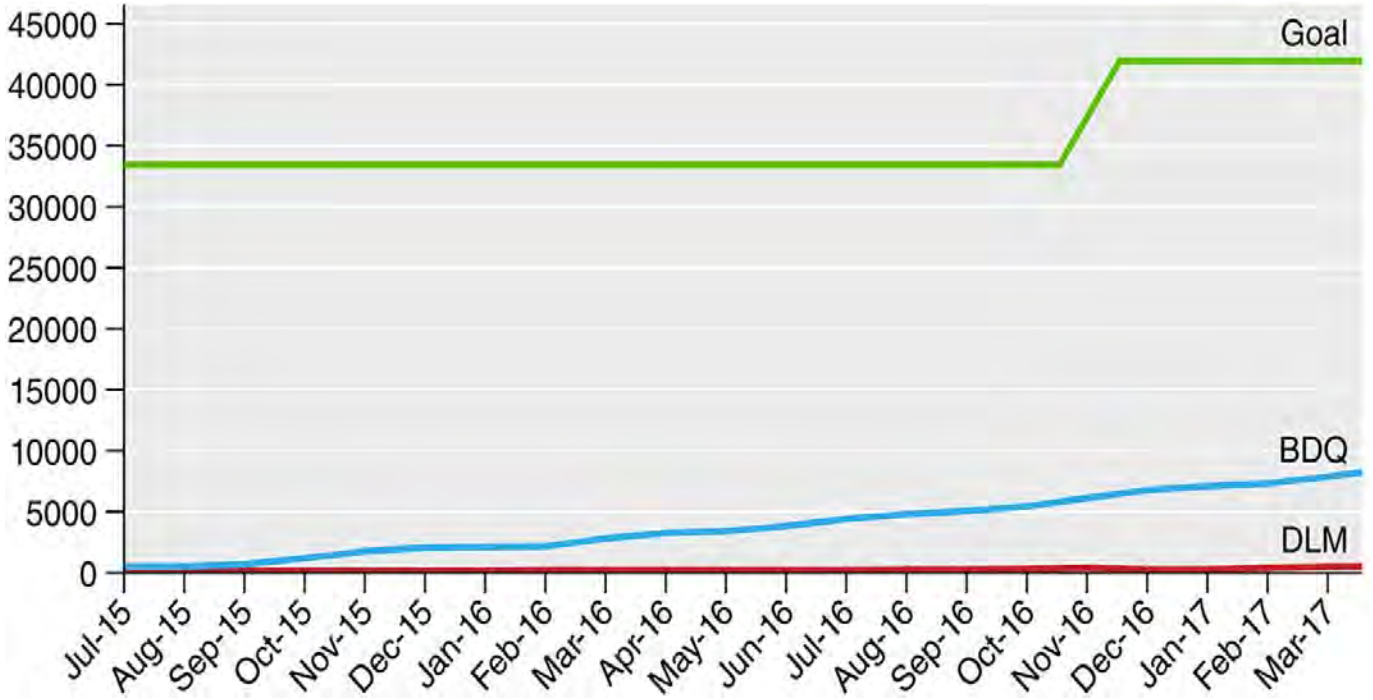
Bridging The Gap Between Tuberculosis Innovation And Access

Posted: 05/02/2017 9:54 am EDT | Updated: 05/02/2017 10:01 am EDT

Never bring a knife to a gunfight. And yet, the global tuberculosis (TB) community has been doing precisely that for decades -- fighting a protracted battle with antiquated, inefficient tools, including an insensitive diagnostic (i.e. sputum microscopy), a low-efficacy vaccine (i.e. BCG), and drug regimens that have hardly changed for decades.

A critically ill patient, with possible drug-resistant TB being examined by his physician. Unfortunately, this patient did not have access to novel diagnostic testing or treatment and died of his disease. (Photo: Dr Jennifer Furin, with permission from the physician and the patient)

Access to new TB drugs



As of March 1, 2017 there were 8,195 persons who have ever taken bedaquiline and 496 who have ever taken delamanid under program conditions. How does that compare to the need? The most conservative estimate would be that these medications are needed in approximately 42,000 patients per year, or one-third of the number of persons initiated on MDR-TB treatment annually.

Pai & Furin. eLife 2017

Why?

1. Lack of adequate funding to national TB programs
2. Regulatory hurdles
3. High cost of tools
4. Restrictive policies
5. Bureaucratic apathy & implementation failures
6. In the case of new drugs, a desire to protect the drug (as opposed to protecting patients) coupled with excessive concern about potential side effects

Pai & Furin. eLife 2017

AFFORDABILITY

American caravan arrives in Canadian 'birthplace of insulin' for cheaper medicine

U.S. residents come to Canada to purchase life-saving type 1 diabetes medication

Thomson Reuters · Posted: Jun 29, 2019 2:58 PM ET | Last Updated: June 29

Quinn Nystrom holds insulin she purchased in Canada after travelling over the border for more affordable medication. (Lorenda Reddekopp/CBC)

https://www.cbc.ca/news/canada/london/insulin-prices-united-states-canada-caravan-1.5195399

THE AMERICAN PROSPECT

The Insulin Racket

NATALIE SHURE JUNE 24, 2019

Insulin is a 100-year-old drug whose wholesale price has tripled in ten years. The reasons why explain everything wrong with America's broken prescription drug market.

About the Author

Natalie Shure is a writer and researcher whose work focuses on health, history, and politics.

ARTICLES BY NATALIE SHURE

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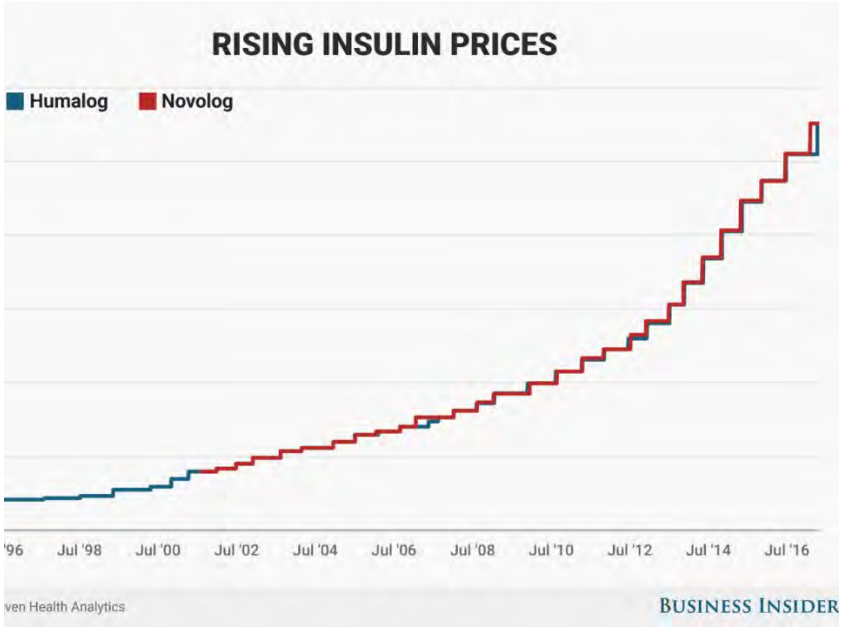
https://prospect.org/article/insulin-racket



Key Facts & Statistics:

- 50% of people around the world in need of insulin cannot reliably access it because it is unavailable, unaffordable, or both[iii]
- Monthly out-of-pocket costs for diabetes supplies the USA are anywhere from $0 to $1700 USD[iv]
- In Syria, up to 77% of income can be spent on diabetes supplies, if any are available[v]
- Monthly costs for diabetes supplies in Brazil can be as much as $700 USD, or 82% of a person's income[vi]
- Full diabetes management in Kenya could cost about $120 USD per month, but the average monthly salary in Kenya is $216 USD[vi]
- Discontinuation of insulin use was the leading cause of diabetic ketoacidosis in 68% of people in a USA inner city[vi]

https://www.t1international.com/media/assets/file/Advocacy_Toolkit_-_WEB_SPREADS.pdf

BUSINESS 07/28/2019 19:50 EDT | **Updated** 07/29/2019 14:04 EDT

This Is Why Insulin And Other Drugs Are So Much Cheaper In Canada

Americans are heading over the border to buy pharmaceuticals at a lower cost.

By Sima Shakeri

With Americans increasingly crossing the border to buy insulin in Canada, prompting worries of a shortage, in a situation that Vermont Senator Bernie

The simple reason is Canada, like many other industrialized countries, has price controls on the cost of pharmaceuticals. The Patented Medicine Prices Review Board ensures the price of patented medicine sold in Canada is “not excessive” and remains “comparable with prices in other countries.”

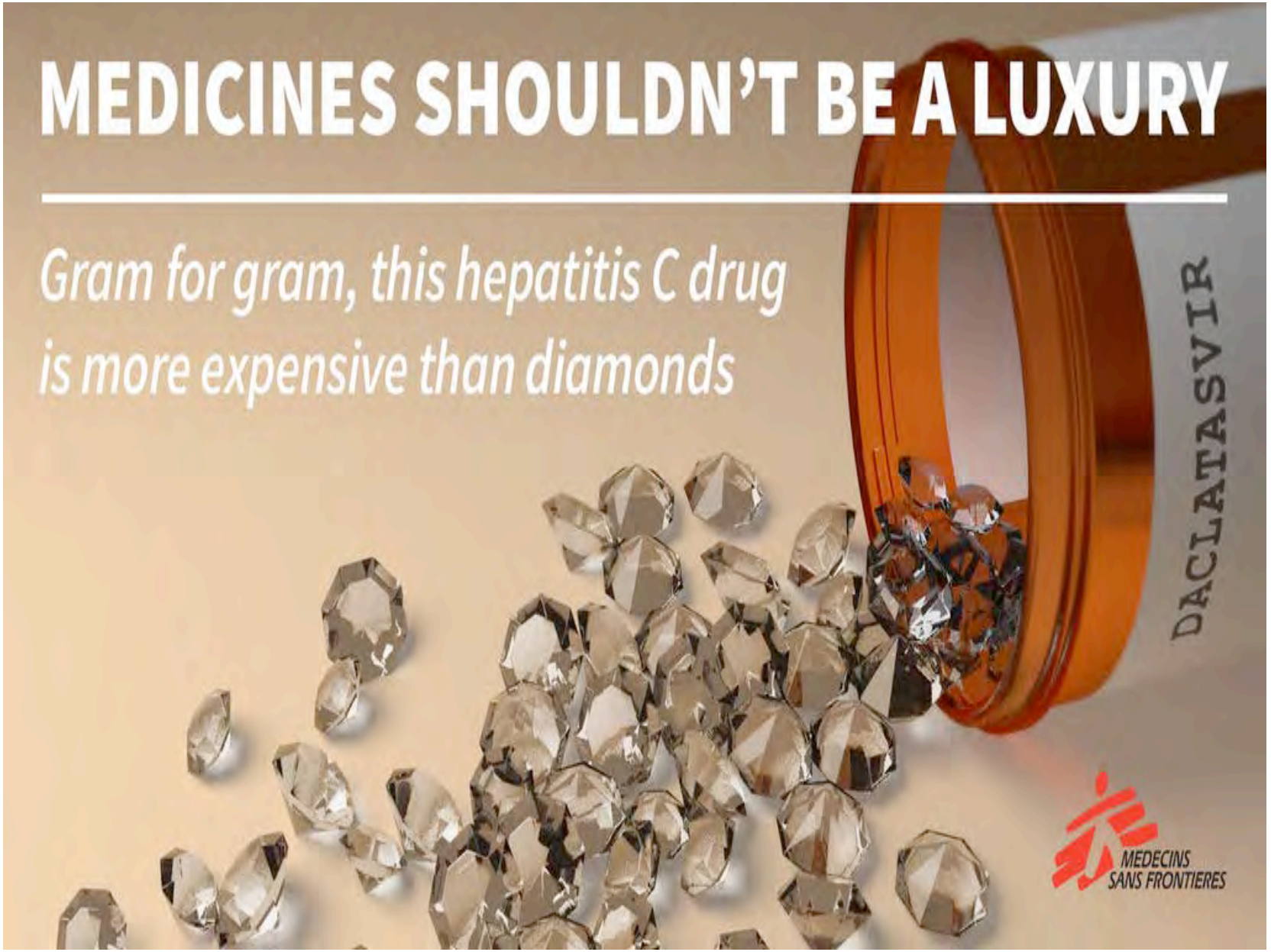
https://www.huffingtonpost.ca/entry/insulin-cheaper-canada-americans_ca_5d3e2e49e4b0a6d6374181de

World Health Organization

ACCESS TO HEPATITIS C TREATMENT 2016

Of 80 million people infected - over 1 million had access to Hep C treatment

We have a long way to go


MEDICINES SHOULDN'T BE A LUXURY
Gram for gram, this hepatitis C drug is more expensive than diamonds
DACLATASVIR
MEDECINS SANS FRONTIERES

Of the 275,000 women in the world who die of cervical cancer every year, more than 85% are in low-income countries, where the incidence of HPV infection is higher and few women have access to screening and treatment - GAVI

HPV vaccines are among the most expensive adult vaccines, often costing close to $400 in the US private sector for a full three-dose course of therapy

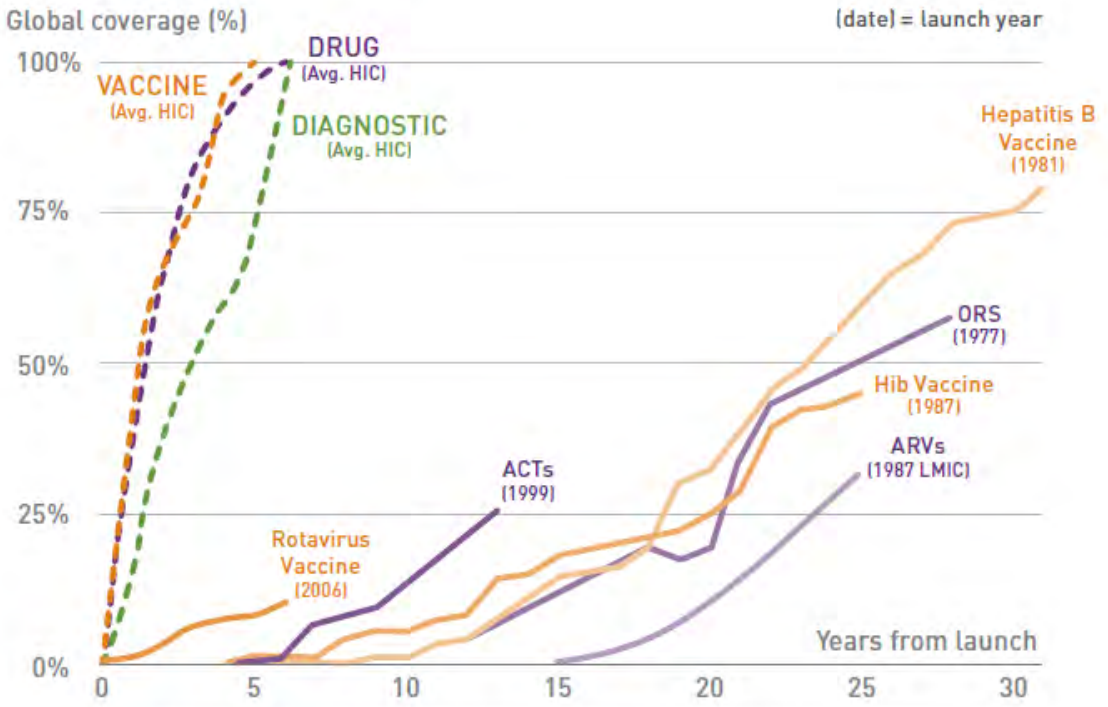
http://blogs.nature.com/spoonful/2010/08/cocaine_monkeys_when_political.html

ADOPTION & SCALE

http://blogs.nature.com/spoonful/2010/08/cocaine_monkeys_when_political.html

Even when products are developed, availability does not necessarily mean they get scaled-up

Figure 1. Years to scale-up



ACT: artemisinin-based combination therapy
Hib: *Haemophilus influenza* type b
LMIC: lower- and middle-income countries
ARV: antiretroviral
HIC: high-income countries
ORS: oral rehydration solution

While drugs, diagnostics, and vaccines typically scale within the first two years of launch in developed countries, they often take decades to scale in lower- and middle-income countries.

Source: Bill & Melinda Gates Foundation

Better Therapies For TB Are Here, But They Will Not Deliver Themselves

Madhukar Pai Contributor ⓘ
Healthcare
I write about global health, infectious diseases, and equity

-Planning, alignment and engagement of stakeholders
-Strong policies
-Pathfinder countries
-Go beyond donation programs
-Active regulators
-Donor support
-United TB community & advocacy

https://www.forbes.com/sites/madhukarpai/2019/08/15/better-therapies-for-tb-are-here-but-they-will-not-deliver-themselves/#7cd13a84272c

Several interesting case studies & models to improve access to tools

Anti-retrovirals

Hepatitis B vaccines

HPV vaccination

Rota virus vaccine

Hepatitis C drugs

New TB diagnostic and drugs

Canada's Ebola vaccine

GAVI

DNDi

Global Drug Facility

Affordable Medicine for Malaria (AMfM)

CEPI

http://fireintheblood.com/

Most models try to address demand and supply side issues

	Description or examples
Supply side	
Preventing delay in generic entry	Expedited or abbreviated application processes, early working (Bolar) provisions, and biowaivers
Incentivising market authorisation	Incentives for manufacturers to file an application for market authorisation of a generic medicine
Assuring quality of generic medicines	Requirements for bioequivalence testing and the publication of lists of interchangeable medicines; transparency of reviews of such evidence; reliance on decisions taken by stringent regulators or prequalification
Using TRIPS flexibility	Policies that enable the use of TRIPS flexibilities, including undisclosed test data protection that does not prohibit the registration of a generic
Increasing competition between manufacturers	Patent pools, improving transparency of patent information, and publishing information on the prices of medicines
Pricing for affordability	Internal reference pricing, external reference pricing, pricing controls, the regulation of distribution chain mark-ups, and charges; pooled procurement and tenders
Demand side	
Promoting generic prescribing	Prescribing medicines by the international non-proprietary (generic) name
Enabling substitutions	Mandate or enable the dispensing of generic equivalents instead of branded products by pharmacists and other dispensers
Adapting medicines reimbursement policies	Promoting generic medicines via waiver of copayments or the application of internal reference pricing
Promoting independent medicines information	Banning the provision of free medicine samples, banning direct-to-consumer advertising of prescription medicines
Monitoring consumption	Monitor and report the consumption pattern of generic medicines

TRIPS=Trade-Related Aspects of Intellectual Property Rights.

Table 4: **Pro-generic policies to increase competition and reduce prices**[162]

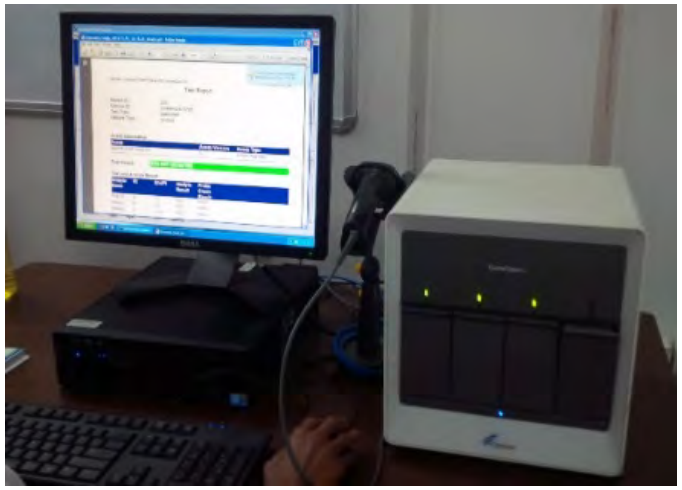
The Lancet Commissions
Essential medicines for universal health coverage
2016

Summary table of different countries and results of their price reduction intervention for Hep C drugs

Country	Description of Intervention	Cost of SOF per treatment of 12 weeks (per pill) pre-intervention	Cost of SOF per treatment of 12 weeks (per pill) post-intervention	Number of people who have accessed lower price medication
Australia (High-income)	Volume-based pricing deal	84,000$ AUS (1,000$)	Free to patients after normal co-payment scheme	25,890 people initiated treatment in 2016
Canada (High-income)	Leveraging collective buying power	55,000$ USD (655$)	Prices not disclosed due to confidentiality	Newer prices not yet implemented
Malaysia (Upper middle-income)	Compulsory licenses	12,000$ USD (143$)	Price is lower than 300$ USD, but SOF alone not disclosed	Newer prices not yet implements. RCTs needed for regulatory purposes
India (Lower middle-income)	Voluntary licenses generic competition	900$ USD (10.71$)	22$ USD (0.26$)	42,000 people had received treatment by the end of 2015
Egypt (Lower middle-income)	Challenging patents generic competition	900$ USD (10.71$)	Gilead's SOF 250$ USD (2.98$) Generic SOF 51$ USD (0.61$)	More than 1 million people had accesed treatment by the end of 2016

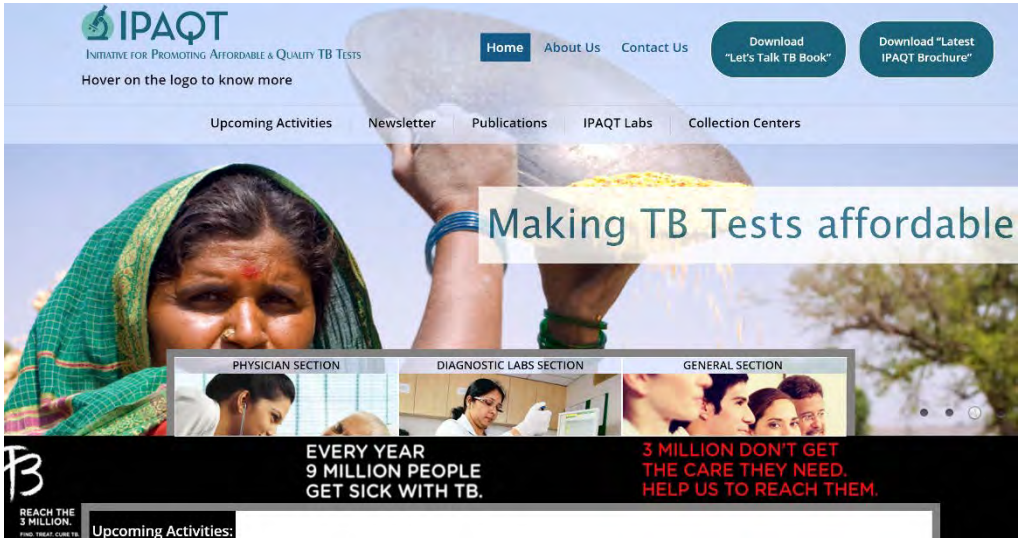
PPHS511 Case Study, Fall 2017
Criminal Cost: The High Price of the Hepatitis C Medication Sofosbuvir
Authors: Adam Palayew B.Sc.(honors)[1], Elitsa Papazova[2], Mauli Patel[3], Nevena Veljanovic[3], Marie Ezran[4], Claudia Woronko B.Sc.(honors)[1]

Case study: Xpert MTB/RIF test for TB and rifampicin resistance



Smear microscopy

Rapid molecular test



CLINTON HEALTH ACCESS INITIATIVE

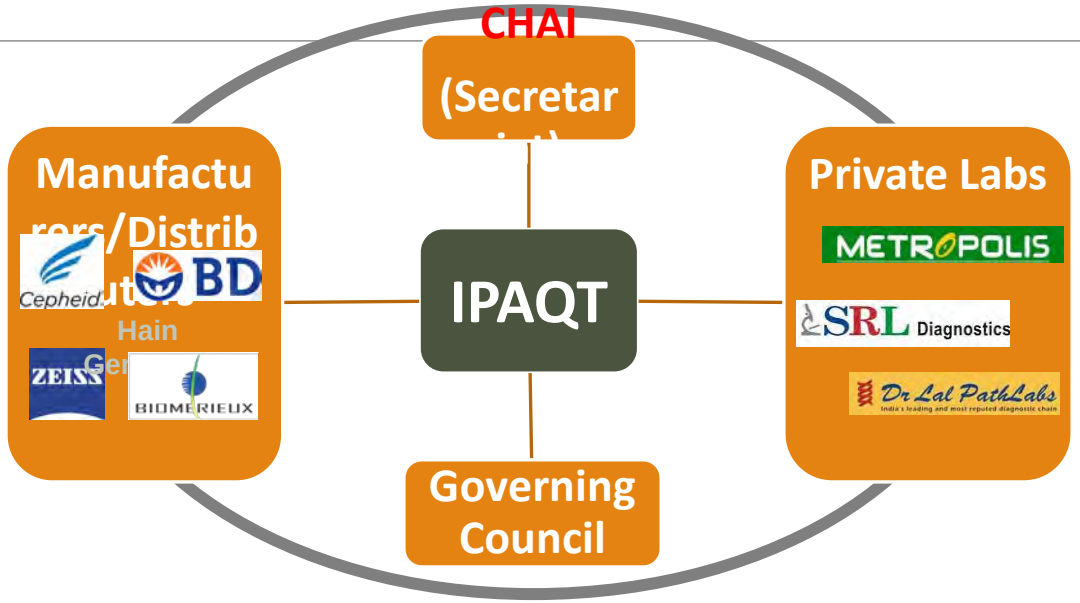
CASE STUDY

Catalyzing the market for accurate tuberculosis testing in India's extensive private sector through IPAQT

INCREASING ACCESS TO ACCURATE, VALIDATED DIAGNOSTICS IN THE PRIVATE SECTOR IS KEY TO REDUCING INDIA'S HIGH TUBERCULOSIS BURDEN. CHAI FACILITATED A PARTNERSHIP BETWEEN PRIVATE SECTOR LABORATORIES AND MANUFACTURERS TO SUPPORT ADOPTION OF A LOW-PRICE, HIGH-VOLUME MODEL THAT IMPROVES ACCESS TO QUALITY DIAGNOSTICS AND STRENGTHENS LINKAGES IN INDIA'S HEALTHCARE SYSTEM.

http://www.ipaqt.org/

What is IPAQT?



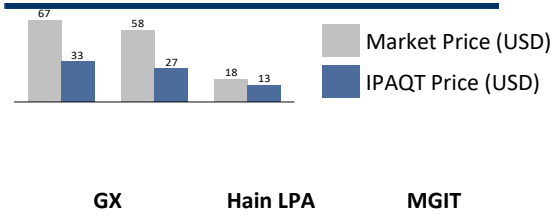
Offered HBDC pricing to private labs which was 50% lower than commercial pricing

Agreed to maintain a ceiling price to patients for TB tests

Lower input price to labs

GeneXpert	Pre-IPAQT ($/Unit)	IPAQT ($/Unit)
Capital Investment	30,00,000	15,00,000
Cartridges	2300	1150

Resulting in lower price to patient

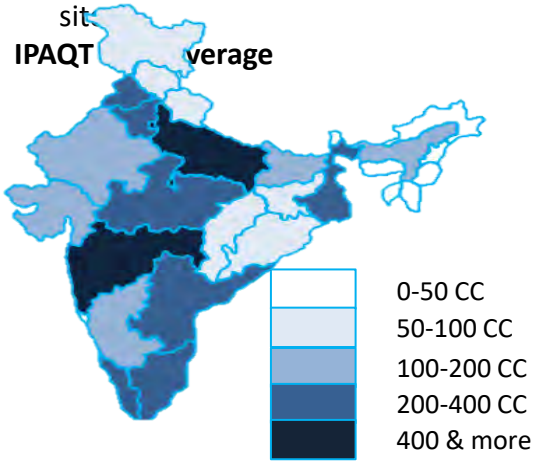


What has IPAQT achieved?

Ensured pan India availability of quality TB tests

- IPAQT network is truly nationwide
- 210 labs, & >6,000 collection centers (cc); all major chain labs.
- >80% Indian districts with at least one participating collection sit

IPAQT verage

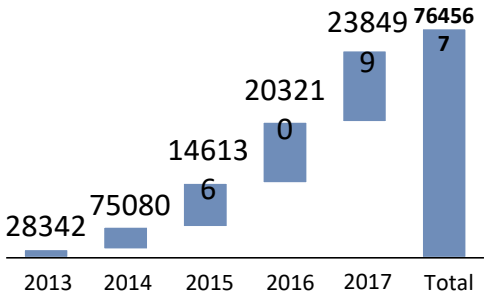


10x increase in test volumes

Steady YoY increase in test orders. ~85% of the GX volumes through IPAQT labs

YoY IPAQT Test Volumes

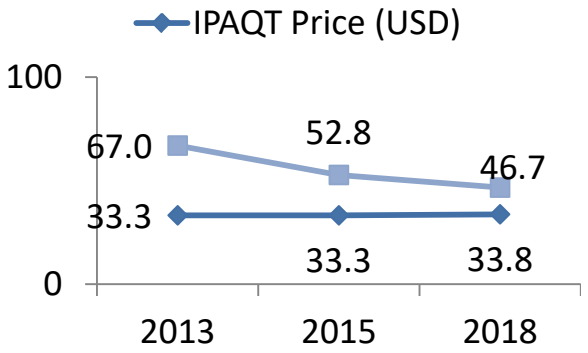
Σ(GeneXpert, Hain LPA, BacT/Alert



Commercial prices of GX reduced over a period of time[1]

YoY GX pricing trends in the private sector suggest that IPAQT has been successful in driving down the commercial GX price

GX Price to Patient



1 – Ponnudurai et al, J Epi Global Health 2018

IPAQT labs offer the lowest price for Xpert MTB/Rif Test in the private sector

Country	Mean price for Xpert MTB/RIF 2015	Mean price for Xpert MTB/RIF 2017-18	Range 2015	Range 2017-18	Labs contacted in 2015 with Xpert testing	Labs contacted in 2017-18 with Xpert testing
Kenya	$80.60	$85.36	$51-$171	$58.20-$149.38	5	5
India						
IPAQT* member laboratories	**$30.26**	**$33.80**	**Fixed Price**	**Fixed Price**	**..**	**..**
Rest of Private Sector	$52.82	$46.70	$27.84-$86.55	$24.67-$80.19	13	22
Pakistan	$37.26	$47.67	$25.96-$58.65	$25.63-$66.45	4	7
Philippines	$155.44	$152.49	$128-$183	$106.4- $170	9	8
Bangladesh	$74.75	$64.20	$45.50-$130	$42-$90	4	6
Afghanistan	$50.00	No Xpert	..	..	1	..
Uganda	No Xpert	No Xpert	..	..	..	..
Vietnam	No Xpert	No Xpert	..	..	..	..
Indonesia	No Xpert	No Xpert	..	..	..	..
Myanmar	No Xpert	$71.03	..	..	..	1
Nigeria	No Xpert	$175.00	..	$115.00-$235.00	..	2
Cambodia	No Xpert	No Xpert	..	..	..	..

- The average price to the patient of US $68.73 in 2015 v/s US $84.53 (range $46.70-$175.00) that patients pay now, translates to a 23% increase.
- The 2015 and 2017-18 data show a similar trend, with IPAQT laboratories still offering the lowest price (US $33.80) among all 12 countries.
- The gap between IPAQT and market prices in India has narrowed between 2015 and 2018, suggesting that IPAQT might have played a role in increasing affordability in the private sector at large.

Source: Ponnudurai et al. J Epi Global Health 2018

THE WALL STREET JOURNAL. Monday, March 18, 2013 | A7

WORLD NEWS

Plan to Fight Deadly TB Strain Gains in India

BY GEETA ANAND

NEW DELHI—An international health initiative has brokered a landmark accord that aims to halve the price patients pay for advanced tests for a strain of tuberculosis that is resistant to standard drugs.

The deal is between the makers of diagnostic equipment that can detect multi-drug-resistant TB and private Indian clinics that test patients. Together, they could fill a big hole in international efforts to combat more-virulent forms of the disease by creating a matchable model.

India is fighting a TB epidemic. In the past year, a Mumbai hospital has been reporting an increasing number of patients—now numbering 22, who are resistant to virtually all of the dozen treatments commonly used against the disease.

Under the accord—coordi-

An Indian patient suffering from tuberculosis was treated in the northern Indian city of Jammu last year.

New Delhi's support is crucial to persuade private physicians and patients to use their tests rather than the poor diagnostics, the initiative's organizers say.

Dr. Daing said the WHO has endorsed all of the discounted diagnostics and they are widely used globally. But the Indian TB officials say they haven't validated some of them. In particular, after about a year of pilot tests, the TB division hasn't adopted GenoXpert—a rapid test to detect TB and drug resistance within two hours—and the pilot studies continue.

Last week, Dr. Daing said he and other organizers visited the TB division and invited officials to endorse their efforts to bring good discounted diagnostics to private laboratories.

"I was quite disgusted" by the reaction of the officials, Dr. Daing said. "They said, these are not validated tests. How can they not

TB, told The Wall Street Journal on Friday. He said he wasn't told why the TB division didn't endorse the effort but said it might have been because a written proposal wasn't submitted. He added that he also needed to review a proposal in writing before endorsing the initiative.

Dr. Pai and Dr. Daing said they canceled plans to announce the initiative with fanfare in New Delhi on Friday because of the TB division's refusal to participate. Both men said the initiative would still go forward, but it would be less likely to be widely adopted without the government's stamp of approval. An official with the Clinton group declined to comment.

"For the uptake to be huge, we need to be able to get the word out to private sector doctors and to patients that these are the tests they should be using and that we are discounting

BMJ

BMJ 2013;346:f2161 doi: 10.1136/bmj.f2161 (Published 5 April 2013)

NE

Private firms form initiative to offer accurate and affordable TB tests

IPAQT: subsidised Xpert TB test in private labs gets popular

The test will cost Rs.2,000 from January 15

R. PRASAD

The number of labs/private hospitals in the country offering the WHO-approved tests like GeneXpert, Line Probe Assay (LPA) for diagnosing TB disease at a subsidised price has reached 54. There are over 10,000 collection centres spread across the country.

In eight months since the novel initiative – Improving Access to Affordable & Quality TB Tests (IPAQT) – was launched, the number people accessing these labs for the

THE PROOF: *Over 15,000 people in India have availed the GeneXpert test in eight months after IPAQT came into being.* – PHOTO: K. PICHUMANI

70 labs in India cut TB test bill by half

Malathy Iyer | TNN

Mumbai: Awareness about drug-resistant tuberculosis across India increased in the last two years after Hinduja Hospital's doctors highlighted the plight of patients who were resistant to all 12 known TB drugs. This is borne out by the fact that the number of sophisticated TB tests—called GeneXpert and Hain line probe assays—done from April to December 2013 stood

TESTS WITH REDUCED COSTS

Xpert MTB/RIF | ₹2,000
Detects multidrug resistant TB in two hours. Considered a game-changer in the battle against TB

Hain Genotype LPA | ₹1,600
Specialized gene-based test to detect resistance to two drugs. Recommended by the World Health Organisation

MGIT Liquid Culture & BacT/ Alert Liquid Culture | ₹900 each
Popular tests used by doctors across the world to detect multidrug resistant strains

nostic laboratory chains in India to offer drug-sensitivity tests for TB at half the price.

Dr Madhukar Pai, an epidemiologist from Canada's McGill University, who has been instrumental in putting the initiative together, said that while the government has upgraded diagnostic facilities, most Indians still prefer the private sector. "The only way to reach out to them was by offering affordable tests. We convinced the labs that the volume of tests would increase to a great extent if the prices were kept low," said Dr Pai.

Considering that 70% of Indians seek healthcare in the private sector by paying from their own pocket, the IPAQT logic clicked. Around 380 diagnostic outlets from Maharashtra are a part of IPAQT; 170 are from Mumbai and Navi Mumbai.

Dr B R Das from SRL Diagnostics, one of the largest diagnostic chains in India, said, "We now offer GeneExpert at Rs 2,000 from the initial cost of Rs 3,500. We conduct approximately 900 GeneXpert tests a month, compared to 50 tests a month two years ago."

Dr Shamma Shetye from Metropolis Healthcare Ltd said, "Since the price is fixed across partner IPAQT labs, it ensures standardization of prices for the patient."

Public health experts believe that low awareness of drug-resistant TB, coupled with high costs of diagnostic tests had worsened the TB epidemic in the country; two people died every three minutes in

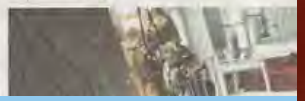
'IPAQT is now seen as a novel market-shaping business model to increase access to quality diagnostics'

THE WALL STREET JOURNAL. **

Plan to Fight De

By Geeta Anand

NEW DELHI—An international health initiative has brokered a landmark accord that aims to



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June 14, 2013

Dr. Madhukar Pai
Associate Director
McGill International TB Centre
Department of Epidemiology & Biostatistics
1020 Pine Avenue West
Montreal QC H3A 1A2
Canada

Dear Dr. Pai:

Thank you for meeting with me during my visit to Mumbai. It was a great discussion, and I enjoyed learning more about India's private diagnostics industry and its role in improving tuberculosis control.

I was very impressed with your comprehensive understanding of the diagnostics landscape in India and your work to ban unreliable serological tests and replace them with more suitable WHO endorsed tests. In particular, I appreciate your heroic efforts to reduce cost and increase access through the IPAQ coalition. I look forward to hearing of future progress.

It was a pleasure meeting you, and I appreciate your sharing your time and expertise with me.

Sincerely,

Bill Gates

Bill Gates

Plan t
An int
price
View

Gavi
The Vaccine Alliance

1 The vaccine goal
Accelerate equitable uptake and coverage of vaccines.

2 The systems goal
Increase effectiveness and efficiency of immunisation delivery as an integrated part of strengthened health systems.

3 The sustainability goal
Improve sustainability of national immunisation programmes.

4 The market shaping goal
Shape markets for vaccines and other immunisation products.

Gavi's business model in six steps

Getting vaccines on the agenda

Donor and developing countries need to see proof of the value of new vaccines before investing.

Securing predictable financing

Immunisation is a commitment for life that requires guaranteed, long-term funding.

Putting countries in charge

Developing countries decide for themselves how best to use Gavi support for immunisation.

Strengthening health delivery systems

It's not enough to buy new vaccines. They have to safely reach every child.

Working together for healthy vaccine markets

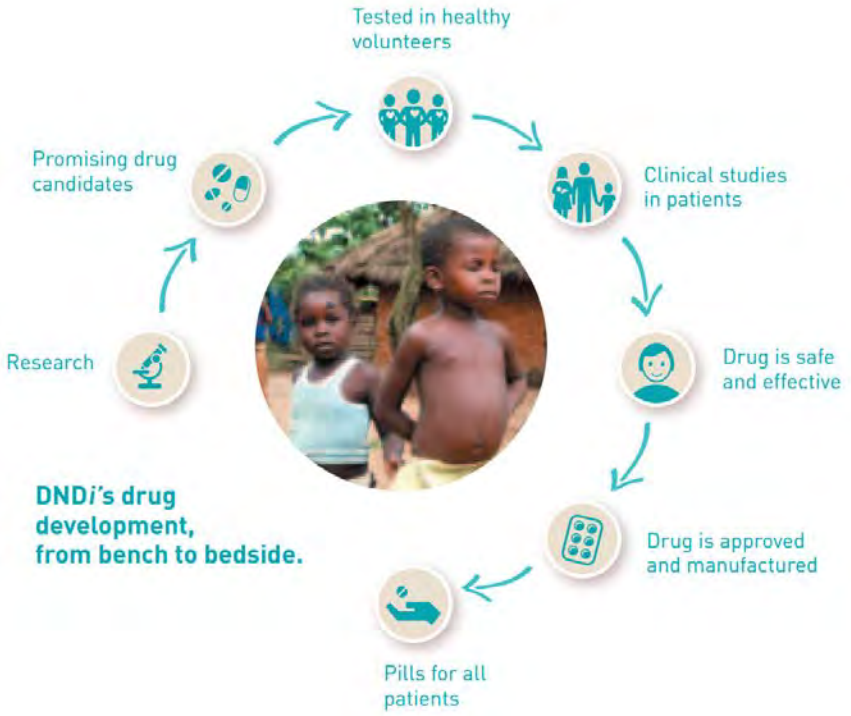
Gavi's market shaping efforts aim to make life-saving vaccines and other immunisation products more accessible and affordable for lower-income countries.

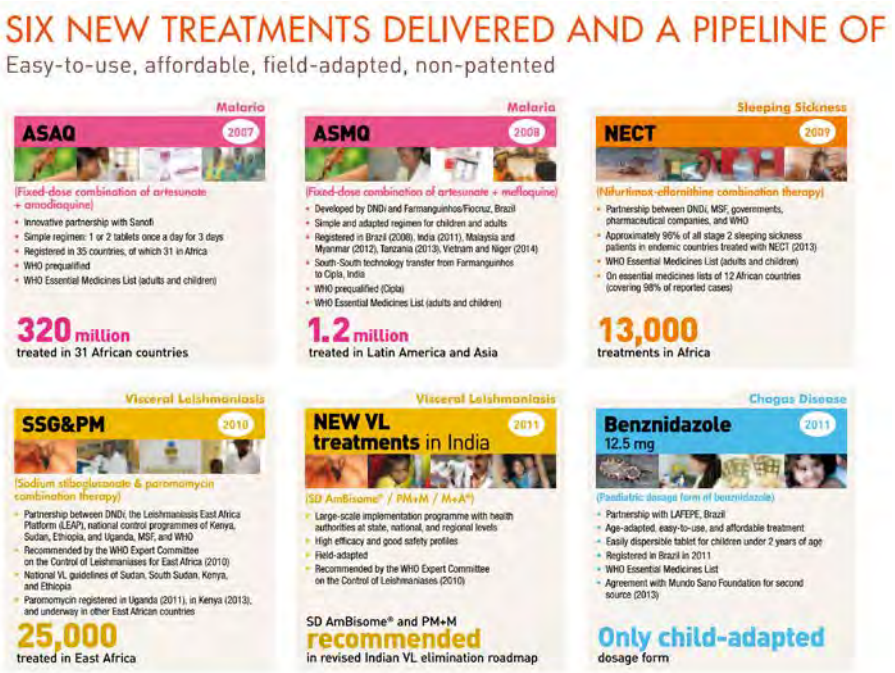
Country commitment to co-financing

National immunisation programes must survive long after Gavi support stops.

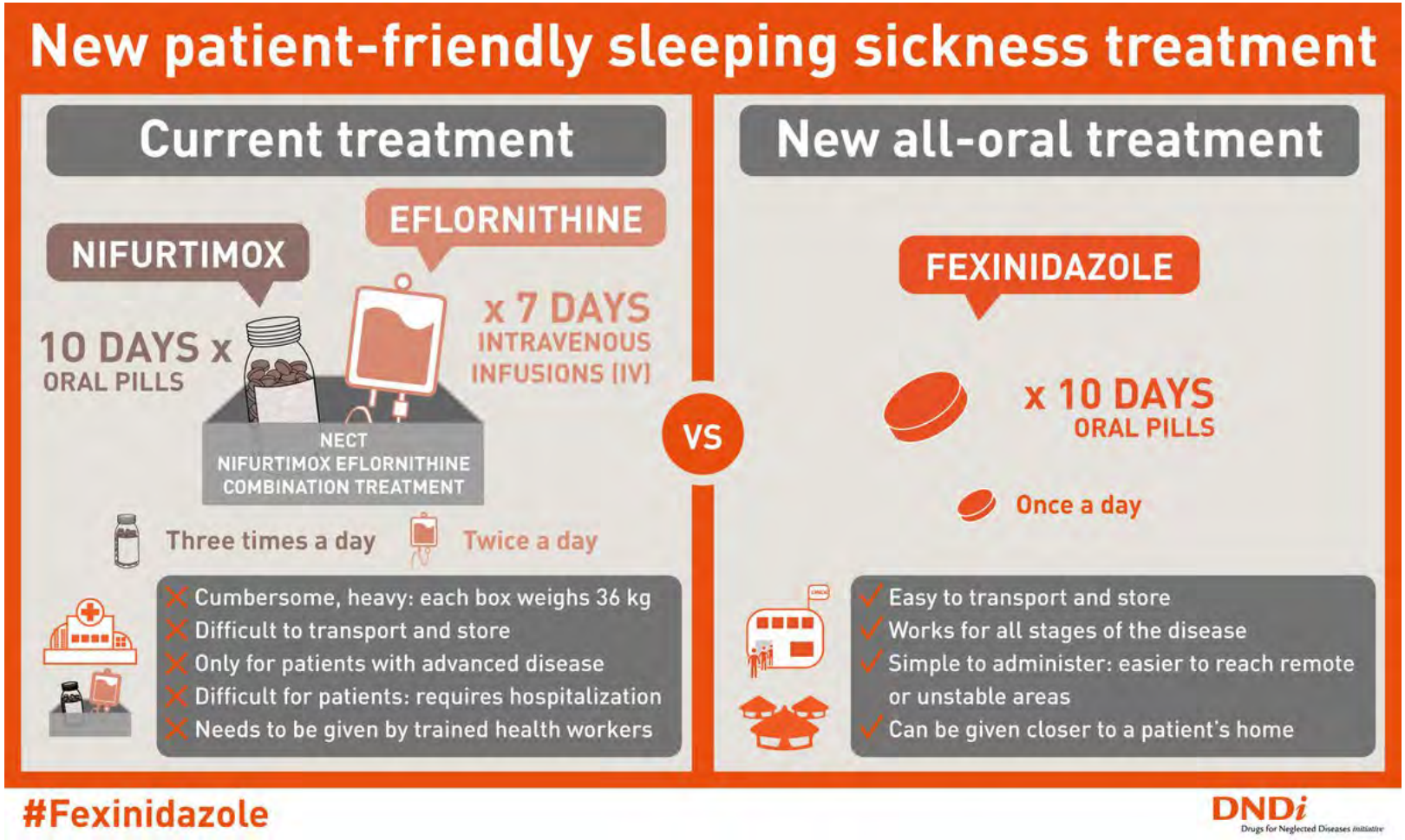
DNDi
Drugs for Neglected Diseases *initiative*

Drugs for Neglected Diseases *initiative* (DND*i*) is a collaborative, patients' needs-driven, non-profit drug research and development (R&D) organization that is developing new treatments for neglected diseases.





DNDi co-developed fexinidazole, the first all-oral treatment for sleeping sickness



https://www.dndi.org/2019/media-centre/press-releases/fexinidazole-sleeping-sickness-approved-democratic-republic-congo/

What about universities? How can we help?

https://canada.globalhealthgrades.org/about/

GLOBAL HEALTH COMMENTARY

The Global Access Initiative at The University of British Columbia (UBC): Availability of UBC Discoveries and Technologies to the Developing World

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ABSTRACT: The University of British Columbia (UBC) became the first university in Canada to develop a strategy for enhancing global access to its technologies. UBC's University-Industry Liaison Office, in collaboration with the UBC chapter of Universities Allied for Essential Medicines (UAEM), established a mandate and developed principles that provide the developing world with access to UBC technologies. This commentary will discuss these principles and provide examples of where they have been applied to several UBC technologies. © 2008 Wiley-Liss, Inc. and the American Pharmacists Association J Pharm Sci 98:791–794, 2009

Keywords: absorption potential; formulation; antiinfectives; vaccine delivery; nanotechnology

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Affordable, life-saving medicines for all: McGill adopts Global Access Licensing Principles for research conducted on campus

News

PUBLISHED: 27 MAY 2009

McGill University, in conjunction with Universities Allied for Essential Medicines (UAEM), has committed to increasing access to life-saving medicines by adopting Global Access Licensing Principles. McGill is the third Canadian university to adopt the principles, demonstrating a dedication to ensure that any research and university-developed technologies created on McGill's campus with potential for further development into a drug, vaccine, or medical diagnostic are made affordable to all.

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Visualizing an alternative biomedical R&D system

12th Jan 2018 Access to medicines Research 0 comments

Author : Chloe Hogg

Chloe Hogg is a recent graduate of McGill University with a BA in Economics and International Development. She is a member of the North American Coordinating Committee of Universities Allied for Essential Medicines (UAEM).

http://globalhealth.thelancet.com/2018/01/12/visualizing-alternative-biomedical-rd-system

Can technologies alone save lives?

How Mobile Phones Are Saving Lives in the Developing World

Medium

How Blockchain Technology Can Save Lives

How Artificial Intelligence Can Save Human Lives

World's fastest delivery drones are saving lives. Here's how

The drones can deliver blood or other medical supplies up to 50 miles away.

Rewriting Life

The Machine That Will Help End TB

Nearly 1.5 million people die from tuberculosis every year, even though most cases can be cured with routine antibiotic treatments. One country's fight to get the ancient scourge under control has an unlikely hero: a simple diagnostic test.

by Jon Cohen December 11, 2012

Tuberculosis is one of the leading causes of death in much of the world; HIV is the only infectious disease that kills more people. Yet many TB cases go undiagnosed.

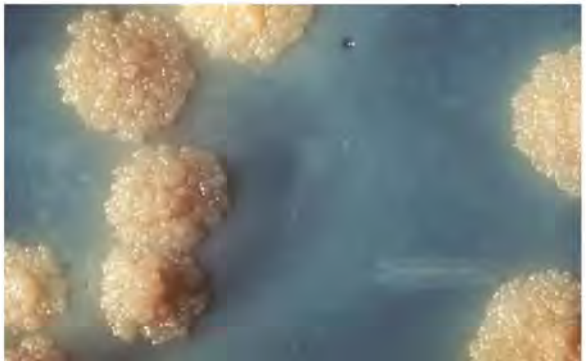
PROMISE

REALITY

Improved Diagnostics Fail to Halt the Rise of Tuberculosis

TB remains a big killer despite the development of a better test for detecting the disease

By Ewen Callaway, Nature magazine on November 17, 2017



PROMISE

REALITY

There are no silver bullets or killer apps in global health…

Open access: http://gh.bmj.com/content/3/2/e000755

Technologies help, but cannot overcome low quality health systems

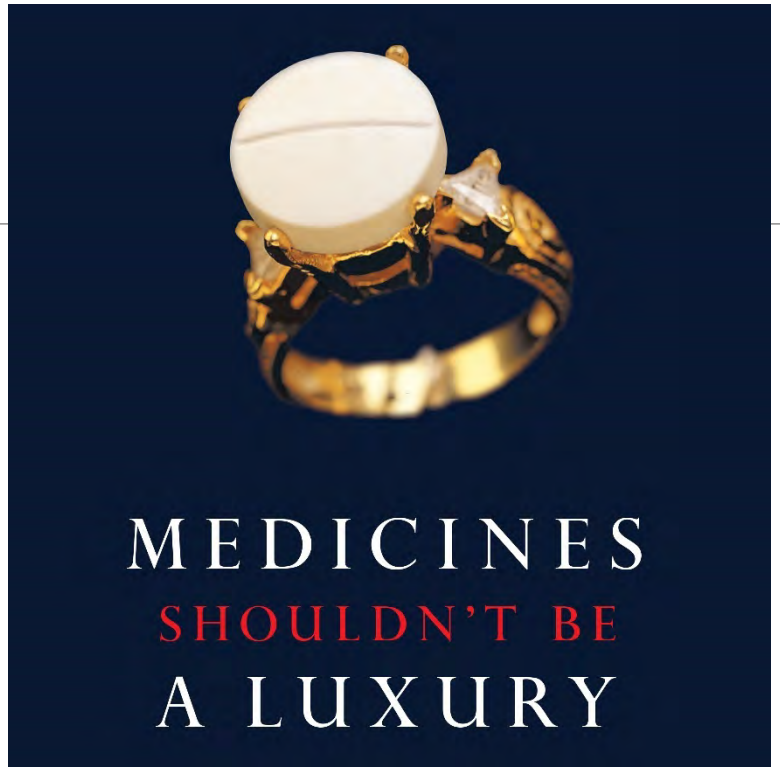
For real, enduring impact, we need high quality health systems

The Lancet Global Health DOI: (10.1016/S2214-109X(18)30386-3)

HQSS
The Lancet Global Health Commission on High Quality Health Systems in the SDG Era

Thank you!

Merci!!



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