



**Asia-Pacific
Economic Cooperation**

APEC Life Sciences Innovation Forum

**Enhancing Innovative Healthcare Financing in Pursuit of
Strong and Resilient Health Systems:
Financing Solutions for Durable Cures**

October 28, 2021

8:00 am EDT / 2:00 pm CEST / 7:00 pm ICT/WIB

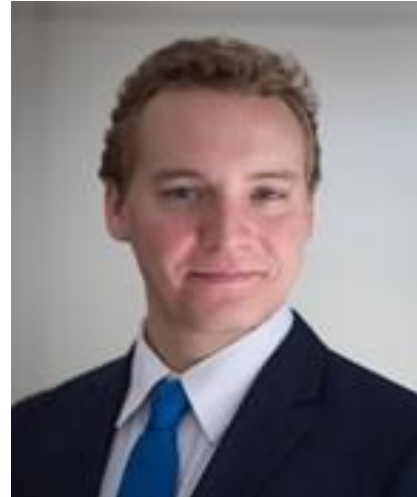
8:00 pm HKT/SGT/CST/PHST / 9:00 pm JST/KST



Asia-Pacific Economic Cooperation

Eric Obscherning

Associate Director
C&M International



Enhancing Innovative Healthcare Financing in Pursuit of Strong and Resilient Health Systems: Financing Solutions for Durable Cures



Asia-Pacific Economic Cooperation

Mark Trusheim

**Strategic Director & Visiting Scientist,
Sloan School of Management,
Massachusetts Institute of Technology**



Enhancing Innovative Healthcare Financing in Pursuit of Strong and Resilient Health Systems: Financing Solutions for Durable Cures

NEW DIGS

FoCUS

Financing and Reimbursement
of Cures in the US

Financing Solutions for Durable cures

28 October 2021

Mark Trusheim

Strategic Director, MIT NEWDIGS

Trusheim@MIT.edu

MIT CENTER FOR BIOMEDICAL INNOVATION



FoCUS: Sustainable Access for Durable Therapies via Downstream Innovation

>90 organizations & 350 individuals engaged



Focus of FoCUS: An MIT NEWDIGS Consortium

On—

Creating **precision financing solutions**



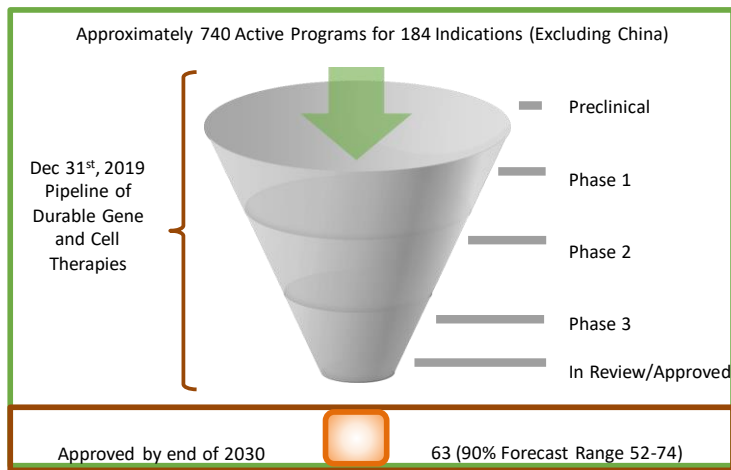
Not on—

Setting value or price

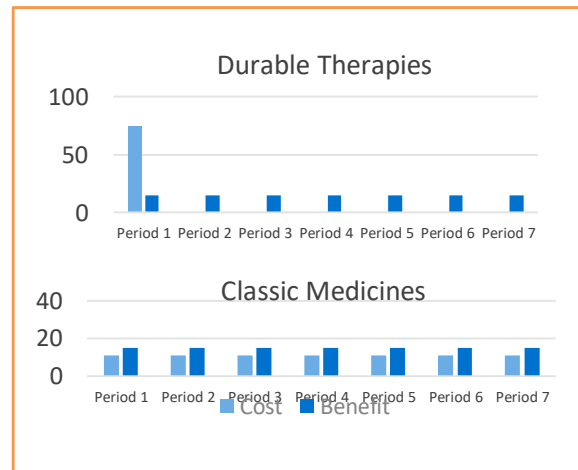


Emerging Durable Therapies Driving New Payment Models

50-75 Therapies Approved for the US Market by 2030



Durable Therapies Distill Payments Upfront



Three financial challenges exacerbated



Payment timing
One-time high cost



Performance risk:
Effectiveness & durability



Actuarial risk:
Likelihood of encountering a case

Patient Impact of Regenerative Medicine

40%

of patients with R/R DLBCL treated with **CAR-T Therapy** experienced a complete response

60%

of patients with R/R B-Cell ALL treated with **CAR-T Therapy** experienced a complete response

58%

of patients with R/R B-Cell NHL treated with **CAR-T Therapy** experienced a complete response

55%

of patients treated with **Gene Therapy** showed an improvement of 2+ light levels darker after treatment



Precision Financing Solutions To Meet The Challenges

Short-term milestone-contract



Orphan Reinsurer and Benefit Manager (ORBM) and Risk Pools



Multi-year performance-based annuities



Warranty Model

NETFLIX

Subscription Model

Performance-based Annuities Address the Three Challenges



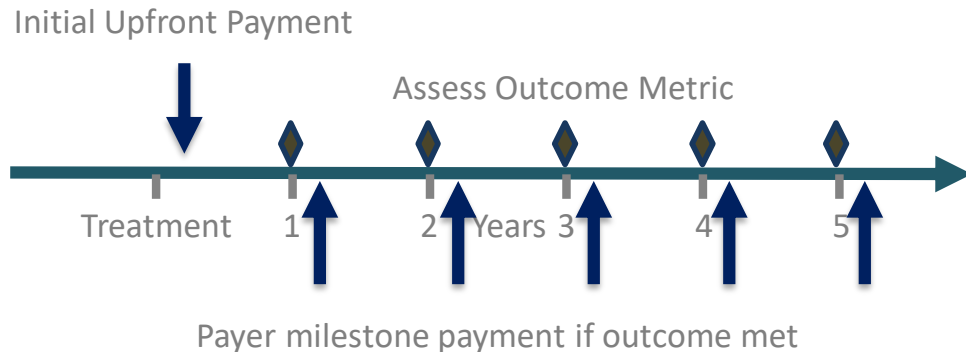
- **Payment Timing:** Match payments to cost avoidance



- **Performance Uncertainty:** Effectiveness & Durability



- **Actuarial Uncertainty:** partial patient level reinsurance on demand



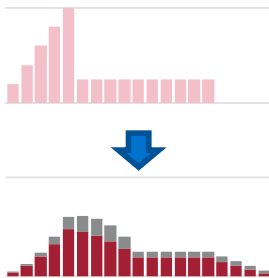
Performance-Based Annuities Address More than Outcomes Uncertainty

The three financial challenges



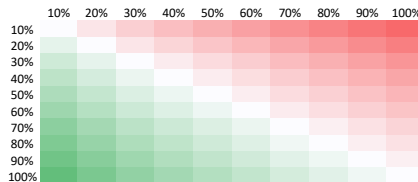
Payment timing
One-time high cost

Surges Smoothed



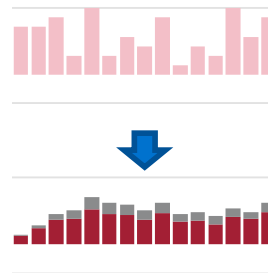
Performance risk:
Effectiveness & durability

Pay for value actually received
not *a priori* estimated value



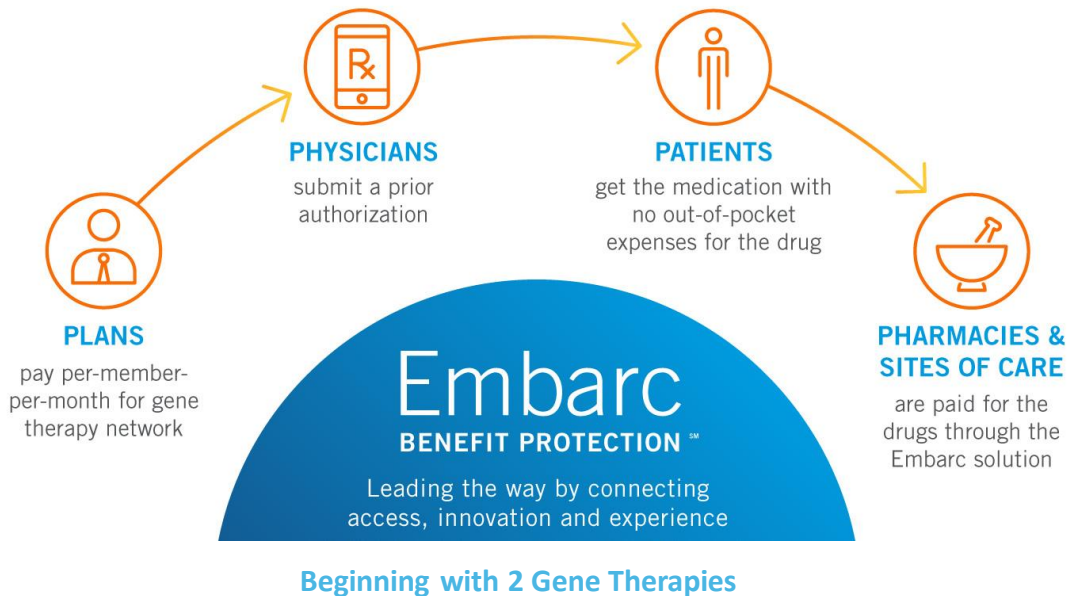
Actuarial risk:
Likelihood of receiving a case

Volatility Reduced





US Insurer Cigna Offering ORBM-Lite: Embarc



All Approaches Must Address US Issues

- **Patient mobility and performance data collection**
- **Risk sharing**
 - Participation or exclusion of providers
 - Interaction with reinsurance and stop-loss insurance
- **Legal & Regulatory**
 - **Medicaid drug price reporting and rebate** need adapting to multi-year performance structures
 - **Anti-Kickback Statute to define explicit safe harbor**
 - **FDA communication guidelines to enable appropriate performance metrics** Clinical trial endpoints often not practical for clinicians or present in data systems

No Perfect Precision Financing Designs Yet Created

		Payment Timing	Performance	Actuary	US Status
Short-term milestone contracts					Multiple Agreements
Warranty Model					Agreements In Negotiation
Multi-year performance annuities					Pilot Stalled Medicaid Best Price
ORBM and Risk Pools					Proposed Private Sector
Subscription Model					State Demonstrations

Go to: <https://payingforcures.mit.edu>

Research Briefs and Peer-Reviewed Publications

ScienceDirect
 Content lists available at sciencedirect.com
 Journal homepage: www.elsevier.com/locate/jfo

Themed Section: Curative Therapies

Are Payers Ready, Willing, and Able to Provide Access to New Durable Gene Therapies?

Jose F. Barlow, MD, MPH, MBA* Mo Yang, PhD, J. Russell Trautman, MA, DMSc
 Center for Biomedical Innovation, Massachusetts Institute of Technology, Cambridge, MA, USA

ScienceDirect
 Content lists available at sciencedirect.com
 Journal homepage: www.elsevier.com/locate/jfo

Themed Section: Curative Therapies

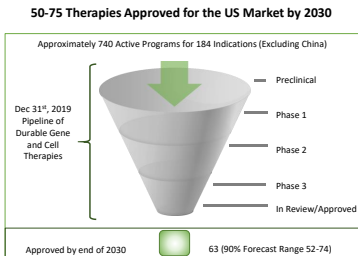
Estimating the Clinical Pipeline of Cell and Gene Therapies and Their Potential Economic Impact on the US Healthcare System

Emory Quinn, PhD* Carlo Young, PhD, Jonathan Horvath, PhD, Mark Trudell, MSc, and the MIT NEWDIGS FoCUS Working Group
 Center for Biomedical Innovation, Massachusetts Institute of Technology, Cambridge, Massachusetts, USA

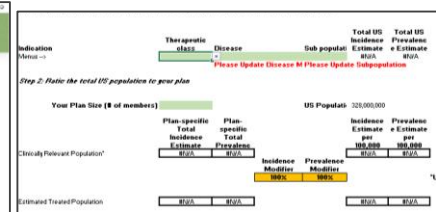
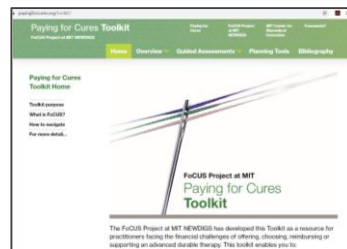
ABSTRACT
 Objective: To explore the economic impact of durable gene and cell therapies. Objective: To explore the economic impact of durable gene and cell therapies. Objective: To explore the economic impact of durable gene and cell therapies.



Unique Gene and Cell Therapy Pipeline Impact Modeling



On-line Toolkit to Educate and Support Practitioners Developing Financing Solutions



Public Speaking Engagements

- FoCUS Financing and Reimbursement of Cures in the US
- Speaking Engagements**
- Jan 29 MassBio Policy Breakfast (M. Trusheim, Boston)
 - Feb 6-7 Blue Cross Blue Shield Association / Aspen Institute (M. Trusheim, DC)
 - Feb 7 Medicinal Innovation Summit (D. Rollman, Orlando)
 - Feb 13 TBD - Milken Institute Faster Cures Workshop (M. Trusheim, DC)
 - Feb 21 American Society for Transplantation and Cellular Therapy (ASTCT)/CBMTRCT Meeting (Trusheim, Orlando)
 - Mar 23-25 MedImpact 2020 (J. Barlow, Dan Mytelka - Carlsbad, CA)
 - Mar 30-Apr 2 Hanson-Wade 4th Annual Gene Therapy for Rare Disorders (M. Trusheim, Boston)
 - April 7-9 Alliance for Healthcare Research and Quality (AHRQ) (M. Trusheim, UK)
 - April 15-16 Eye for Pharma Philadelphia 2020 (M. Trusheim, Philadelphia)
 - April 21 National Cooperative Rx Annual Meeting (J. Barlow, Madison, WI)
 - May 1 Therapies World Organ Drug Congress (M. Trusheim, DC/MD)
 - TBD Mellon Financial "Double Take" Podcast (D. Mytelka)

Educational Events

MIT/CBI Paying for Cures Events Research and Tools Media MIT

Paying for cures: Ensuring patient access and system sustainability
 February 12, 2019 • Washington, DC

Learn Precision Financing solutions with innovation leaders and national policymakers at this workshop.

Design Labs



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Asia-Pacific Economic Cooperation

Dino Sepulveda

**Head of Department of HTA and
Evidence-Based Medicine,
Ministry of Health, Chile;**

**Executive Secretary, Ministerial
Advisory Commission on Rare Diseases**



Enhancing Innovative Healthcare Financing in Pursuit of Strong and Resilient Health Systems: Financing Solutions for Durable Cures



- **Risk-sharing agreements:**
- The experience of the 4th decree of the Ricarte Soto Law

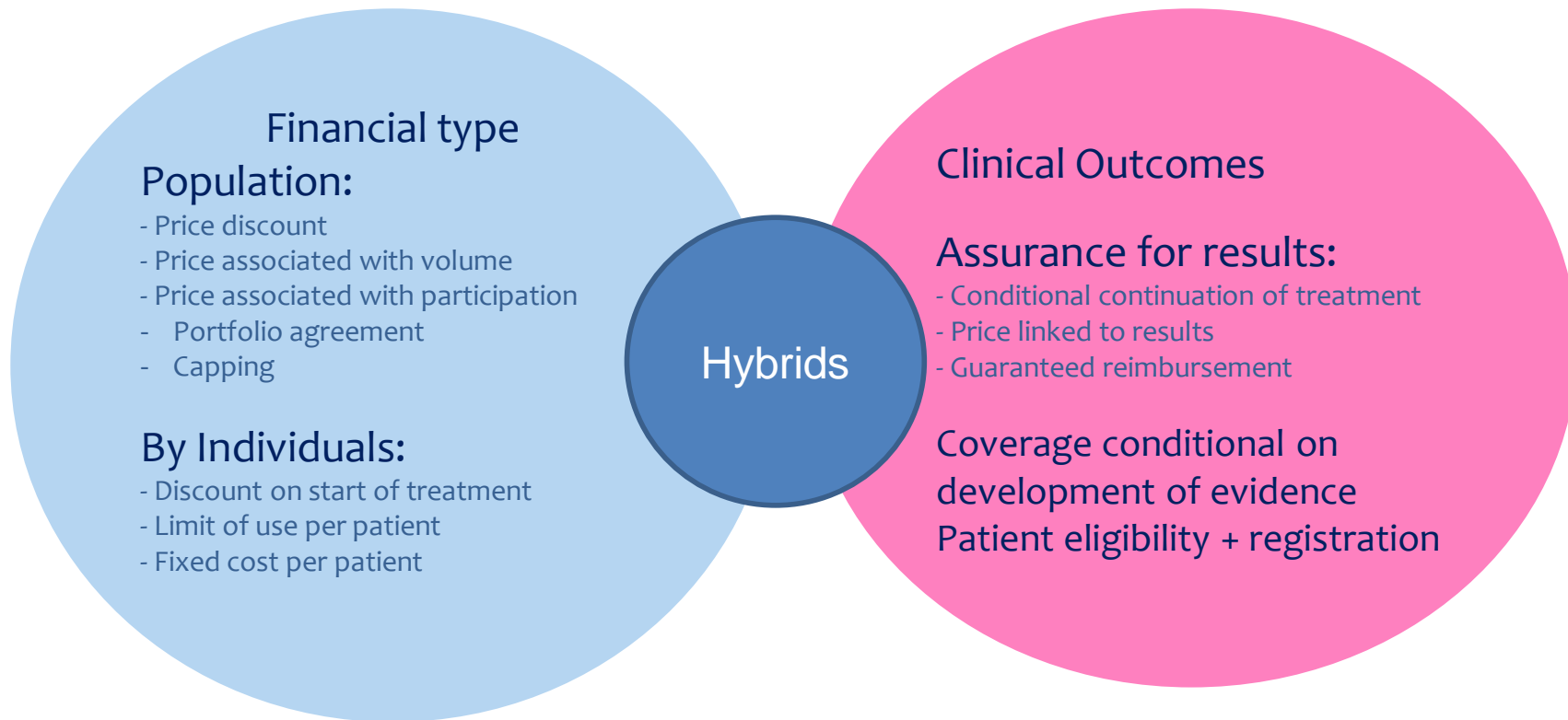
• Content

- Introduction
- Taxonomy
- RSA in the evaluation process in 4th Decree of Ricarte Soto Law
- RSA in technologies prioritised in 4th Decree of Ricarte Soto Law
- Barriers to implementation
- Endpoints

• Introduction

- **What is a risk-sharing agreement (RSA)?**
- An agreement between a provider [pharmaceutical company] and a payer/provider that allows access (coverage and reimbursement) to a health technology under certain conditions.
- These contracts have the potential benefits of allowing early access to technologies for patients and reducing uncertainty about their use's effectiveness, cost-effectiveness, and financial impact under real-world conditions.
- They are also referred to as Entry Management Agreements, Patient Access Schemes, Evidence-Based Coverage, etc.

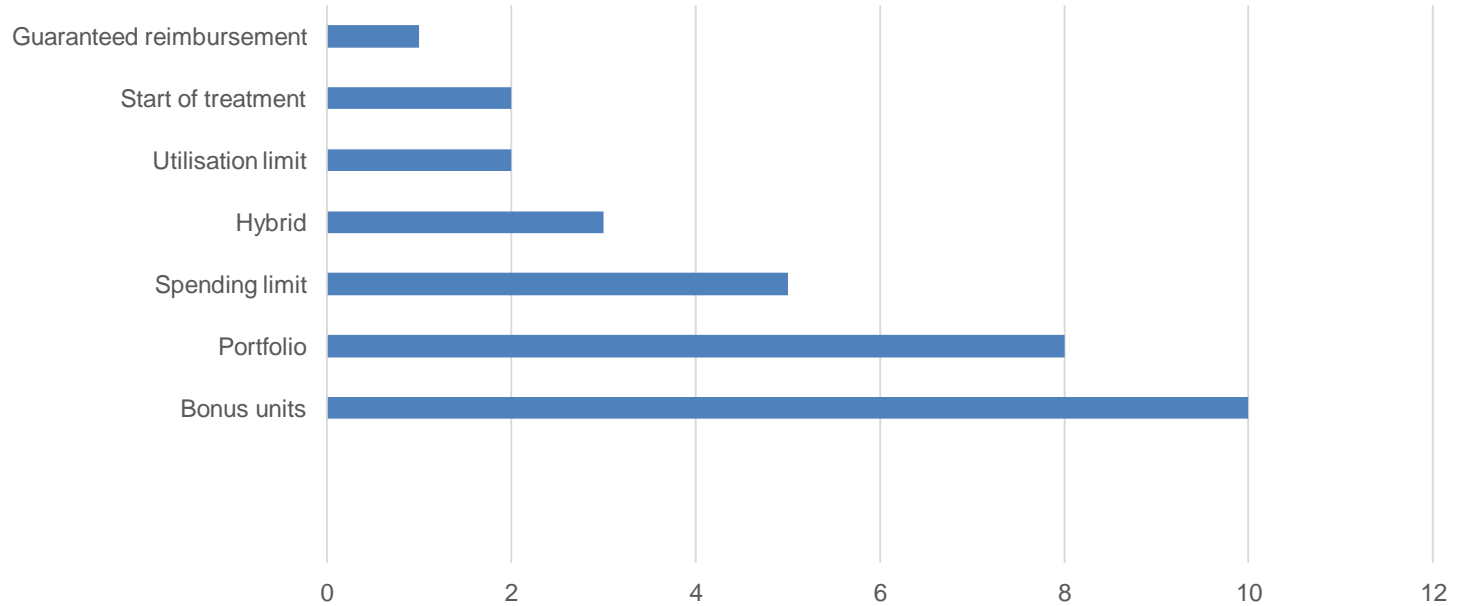
Taxonomy of risk-sharing agreements



• Risk-sharing agreements - Evaluation process 4th LRS decree

- The number of drug intention-of-price letters received for the fourth LRS decree was **103** from 32 different suppliers, covering 62 drugs.
- 70 of the quotations (68%) considered price discounts or other types of RSA.
- 65 quotations were submitted with discounts.
- There were 31 RSA proposals (other than price discounts) (28%).

Types of risk-sharing agreements Evaluation process of the 4th LRS Decree



Courtesy of Mr. Sergio Poblete, on the basis of Poblete (2020)

Limitation of Risk-sharing agreements implementation



Public procurement law

Within the Public Procurement Act framework, certain agreements such as portfolio or volume-related price agreements cannot be implemented.



The inertia of the purchasing process

Implementing risk-sharing arrangements involves changing the basis on which medicines are traditionally procured.



Purchasing logic

The purchasing entity (CENABAST) operates by centralising and aggregating demand. Risk-sharing agreements require modifying this modus operandi.



Information systems

The public health system does not have global clinical registry systems to monitor the evolution of clinical outcomes.



Non-understanding of benefits

Most public sector actors see these initiatives as a way for the industry to hide prices. As a result, there is no appreciation of budgetary benefits or of paying for health effects in practice.



Lack of skills

International experience shows that risk-sharing arrangements are complex in terms of design and implementation, requiring specialised technical teams to carry them out.

• Key points

- The experience of the 4th LRS decree is pioneering for the public health sector in terms of risk-sharing agreements.
- Laboratory proposals are mainly financial, conditioned by the feasibility of implementation and technologies with high budgetary uncertainty.
- International experience indicates that ARC requires a proactive role of the public funder/payer (selective).
- There is no "gold standard" risk-sharing agreement. It will depend on health technology and uncertainty.
- The main challenge is to move forward in the area of implementation.
- It requires the generation of competencies within the public health system that allow the formulation of this type of contract and the development of specific infrastructure (information systems) that will enable the monitoring and follow-up of this type of agreement.

• References

Grimm, Sabine, et al. "Framework for analysing risk in health technology assessments and its application to managed entry agreements." *Sheffield: University of Sheffield* (2016).

Antonanzas, Fernando, et al. "The use of risk-sharing contracts in healthcare: theoretical and empirical assessments." *PharmacoEconomics* 37.12 (2019): 1469-1483.

Poblete, Sergio. "Acuerdos de riesgo compartido para medicamentos de alto costo en Chile." *Revista Estudios de Políticas Públicas* 6.2 (2020).

Ricarte Soto Law, Chile: <https://leyricartesoto.minsal.cl/#/articulos/informacion-por-decreto>
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Asia-Pacific Economic Cooperation

Goffredo Freddi

**Executive Director, Policy &
Communications at MSD Italy**



Enhancing Innovative Healthcare Financing in Pursuit of Strong and Resilient Health Systems: Financing Solutions for Durable Cures

The Fund for Innovative Drugs: the Italian experience

Goffredo Freddi

Executive Director

Policy & Communication

MSD Italy

October 28th 2021



Overview

For more than a century, we have been inventing to solve some of the greatest challenges to people's health and well-being around the world

Businesses

Prescription medicines, vaccines, biologic therapies, animal health products

2020 revenues

\$48 billion; 56% of sales come from outside the United States

Headquarters

Kenilworth, New Jersey, U.S.

Merck & Co., Inc.

This is our legal name and is listed on the New York stock exchange under the symbol "MRK"

16.7K

people employed in research and development

422M

people reached through our major programs and partnerships

\$13.6B

invested in R&D in 2020

\$3.1B

total philanthropy in 2019

Our giving

How public pharmaceutical spending is currently funded in Italy?

The creation of the Funds for Innovative Drugs (2017)

Universal coverage
mostly funded
by general taxation



~€ 120 B

National
Healthcare
Fund

7.0%

Cap for retail
spending

7.65%

Cap for pharma
spending at
hospital level

- Chronic overshoot of the cap for pharma spending at hospital level
- Savings in the pharma spending at retail level (i.e., € 1 B) not used to mitigate the overshoot in the other cap
- The overshoot of the budget for pharma spending at hospital level **risks to limit patient access to innovative drugs**

From 2017 onwards
(on top of the two caps)

Molecules labelled as innovative by the Italian Drug Agency (36-month inclusion in the Funds)

Molecules included in the Funds are excluded from Companies' payback + fast track inclusion in national/regional formularies



€ 500 M

Fund for
I/O Drugs












€ 500 M

Fund for
I/non O Drugs

To be labelled as innovative, the drugs must prove an important therapeutic need, therapeutic added value and quality of evidence

How does the Drug Agency evaluate whether a drug is innovative or not?

1. Therapeutic need (maximum/Important) <i>- absence/limited therapeutic options</i>			
2. Therapeutic value added (maximum/Important) <i>- > efficacy demonstrated on clinically relevant outcomes</i>			
3. Quality of evidence (High/Medium) <i>- trials and mature OS data as major drivers</i>			
	FULL INNOVATION • No Payback • Fast access to hospital formularies	CONDITIONAL INNOVATION • Fast access to hosp.ital formularies	NO INNOVATION

Two major changes from the creation of the Funds:

- 3-year inclusion in the Fund granted to therapeutic indications rather than to the single molecule
- The Funds, originally foreseen for the 2017-2019 period, are now structural

Did the Funds for Innovative Drugs prove to be an effective measure?

- The evaluation on the effectiveness of the Funds for Innovative Drugs must meet two primary endpoints

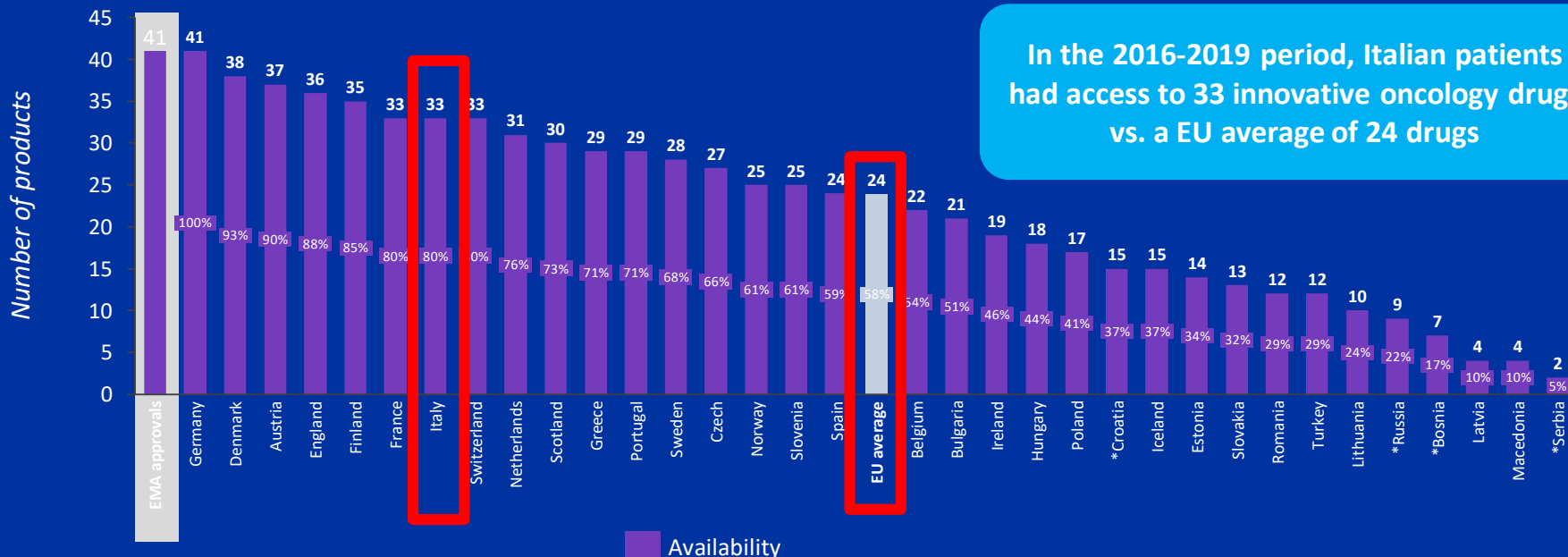
The rate of **availability**, measured by the number of medicines available to Italian patients, and the **time to availability**, measured by the days between EMA MA and the date of availability to Italian patients

The overall **affordability** of the Italian Healthcare System

Focus on Innovative Oncology Drugs

IQVIA "Patients W.A.I.T. Indicator 2020 Survey" (April 2021)

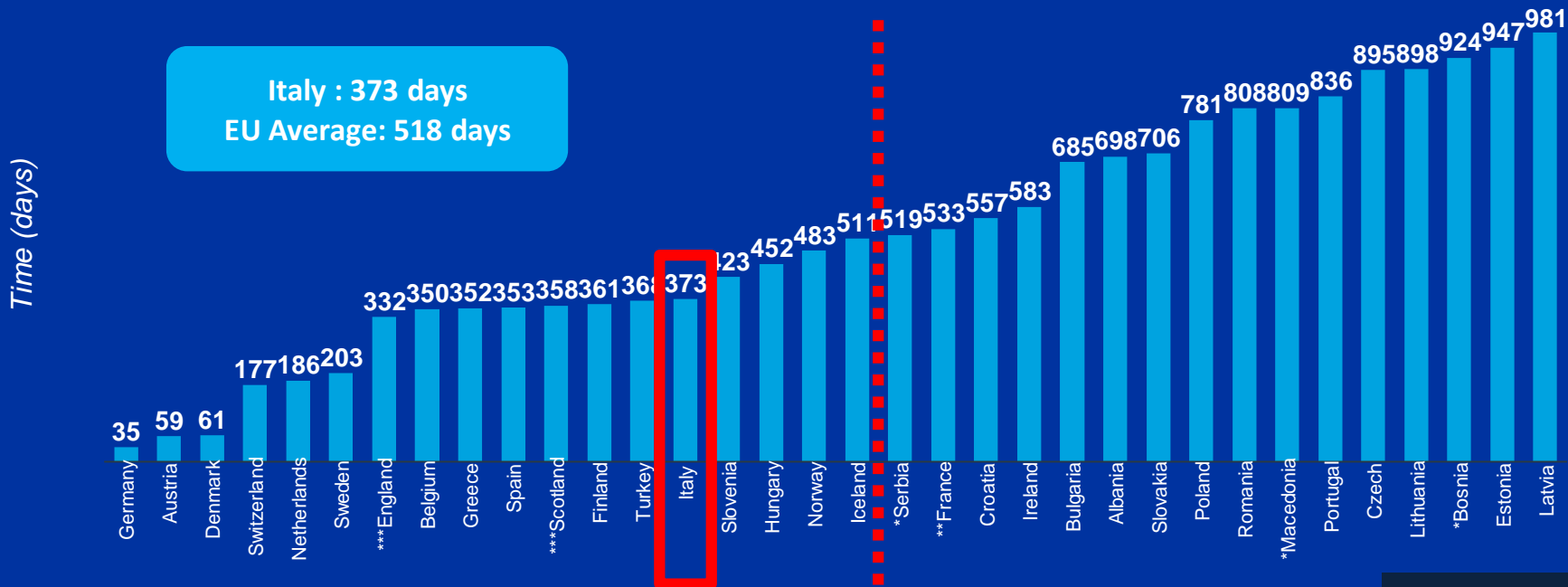
The **rate of availability**, measured by the number of medicines available to patients in European countries as of 2020. For most countries this is the point at which the product gains access to the reimbursement list



Focus on Innovative Oncology Drugs

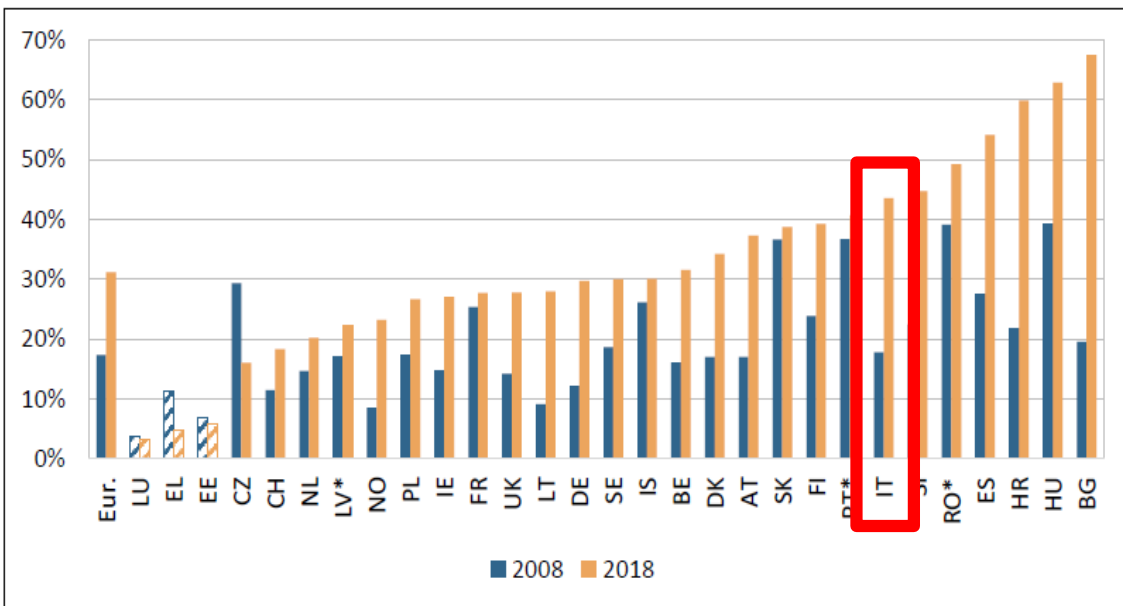
IQVIA "Patients W.A.I.T. Indicator 2020 Survey" (April 2021)

The **time to availability** (previously know as length of delay) is the days between EMA marketing authorisation and the date of availability to patients in European countries



Did the Funds contribute to the affordability of the Italian NHS?

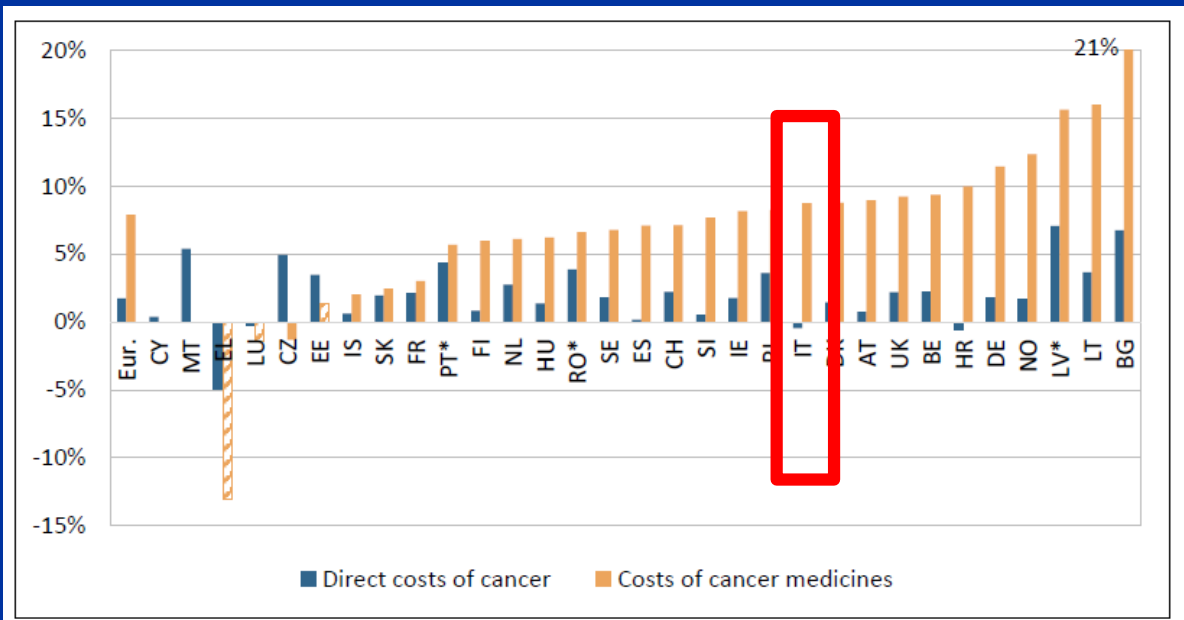
“Comparator Report on Cancer in Europe 2019 – Disease Burden, Costs and Access to Medicines” (IHE)



- According to the findings of the study, Italy is among the countries with the highest increase of the spending on oncology drugs (direct costs) in the 2008-2018 period



Did the Funds contribute to the affordability of the Italian NHS?

“Comparator Report on Cancer in Europe 2019 – Disease Burden, Costs and Access to Medicines” (IHE)

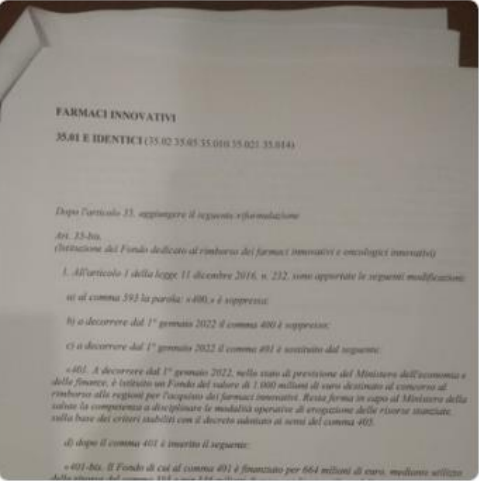



- At the same time, Italy is the only country which, while increasing the spending on oncology drugs, decreased the overall healthcare spending for oncology patients in the 2008-2018 period, thus contributing to the overall affordability of the Italian NHS

Latest changes in the Funds for Innovative Drugs

 **Beatrice Lorenzin** 
@BeaLorenzin

Approvato emendamento che unifica i due fondi per farmaci #innovativi, #oncologici e non. Il sistema sanitario riorganizza e ottimizza l'accesso all'#innovazione. Questo è il primo passo. Bisogna aumentare il fondo e adeguare periodicamente autorizzazioni delle nuove molecole.



1:56 PM - Jul 9, 2021 

Non binding Parliament opinion – backed by the Italian Ministry of Economy – asking the Government to **increase the financial allocation for the Fund for Innovative Drugs**

July 2021

Italy to increase resources for innovative drugs

APM - Italy is planning to increase resources for drugs recognised as innovative in a €6 billion boost to national health funding over the next three years.

Ministers approved the 'Draft Budgetary Document for 2022'.

On healthcare, it was announced that, compared with 2021, the National Health Fund will be increased by €2 billion each year until 2024. **New resources will be allocated to the fund for innovative drugs and for spending on vaccines and drugs to contain the Covid-19 pandemic**

October 2021

July 2021: One single Fund (€ 1 B) for Innovative Drugs

Thank You!

Questions?