EAHP Academy Camp 2013

Pharmacoeconomics – tools, strategies and beyond

Seminar I: General, Public Health and Pharmacoeconomics

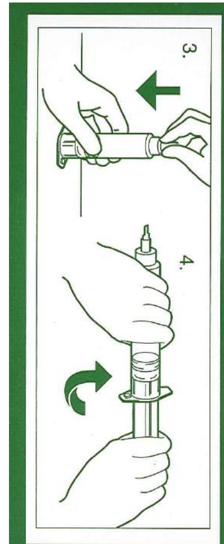
13th September 2013

Jean-Christophe Devaud

Conflict of interest

nothing to disclose

Introduction – The choice for propofol



Ready to use syringe

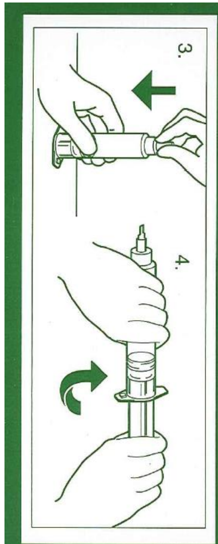
Euros 31.24 the unit

Vials

CHF 14.83 the unit

Introduction – The problematic

Introduction – The management



- Ready to use syringe
- Sterile gloves
- Nursing time

Euros 32.09

- Sterile gloves
- 50 mL syringe
- Needle 19G
- Alcohol swab
- Nursing time

Euros 17.69

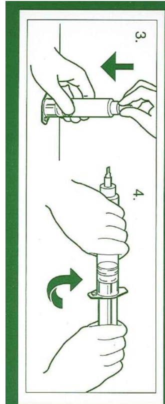
Introduction – The economic decision

We choose the vials for Euros 17.69 the unit

Thank you very much for your attention!

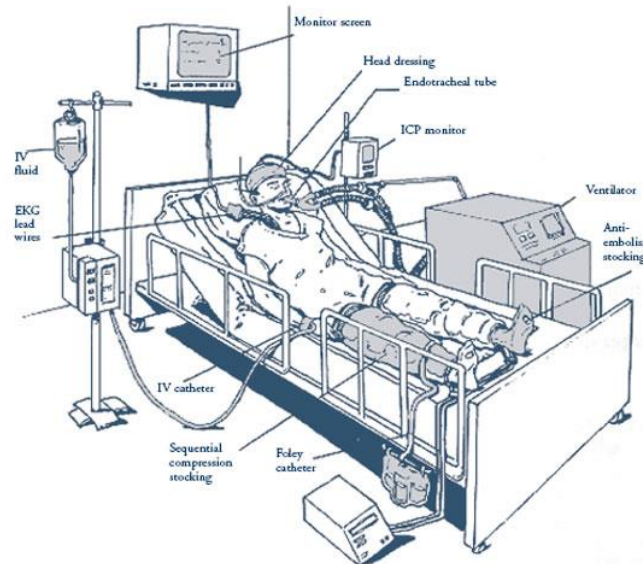
Is there anything missing in the analysis?

Introduction – This decision should be reviewed

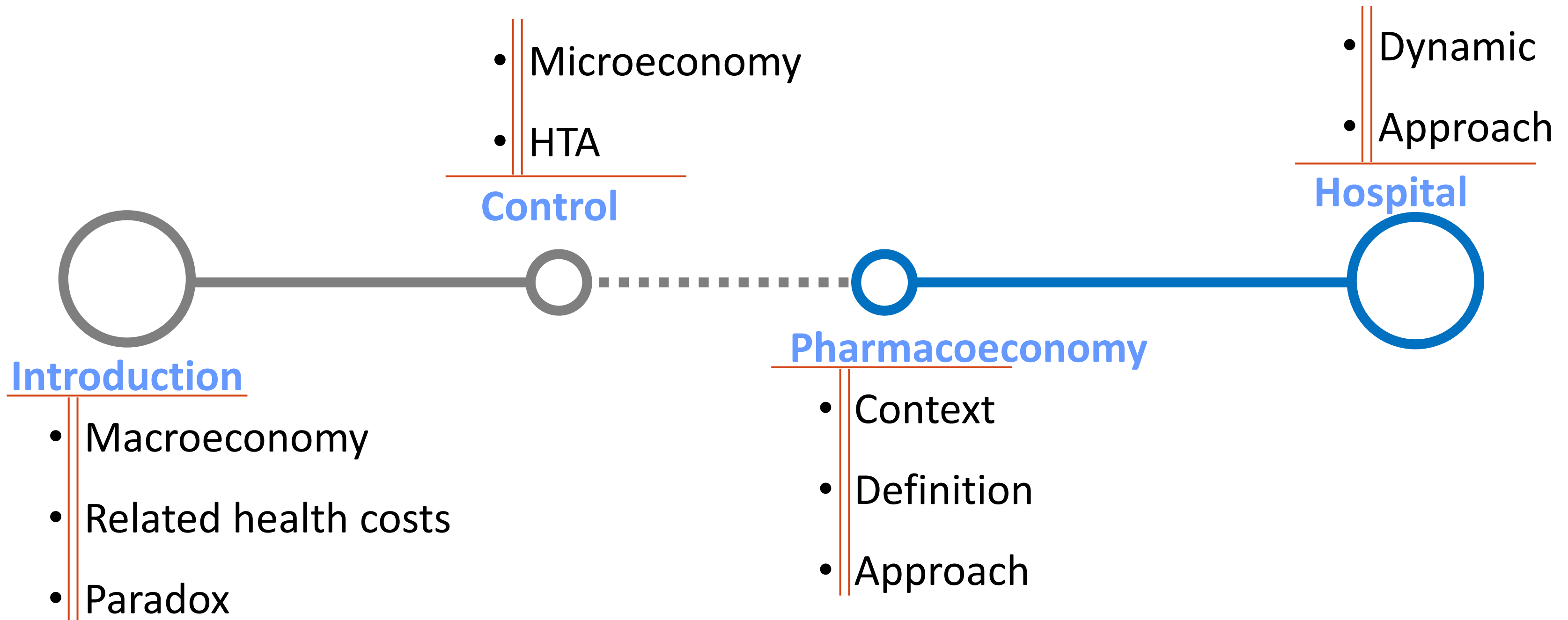


or

Does a choice influence the clinic?

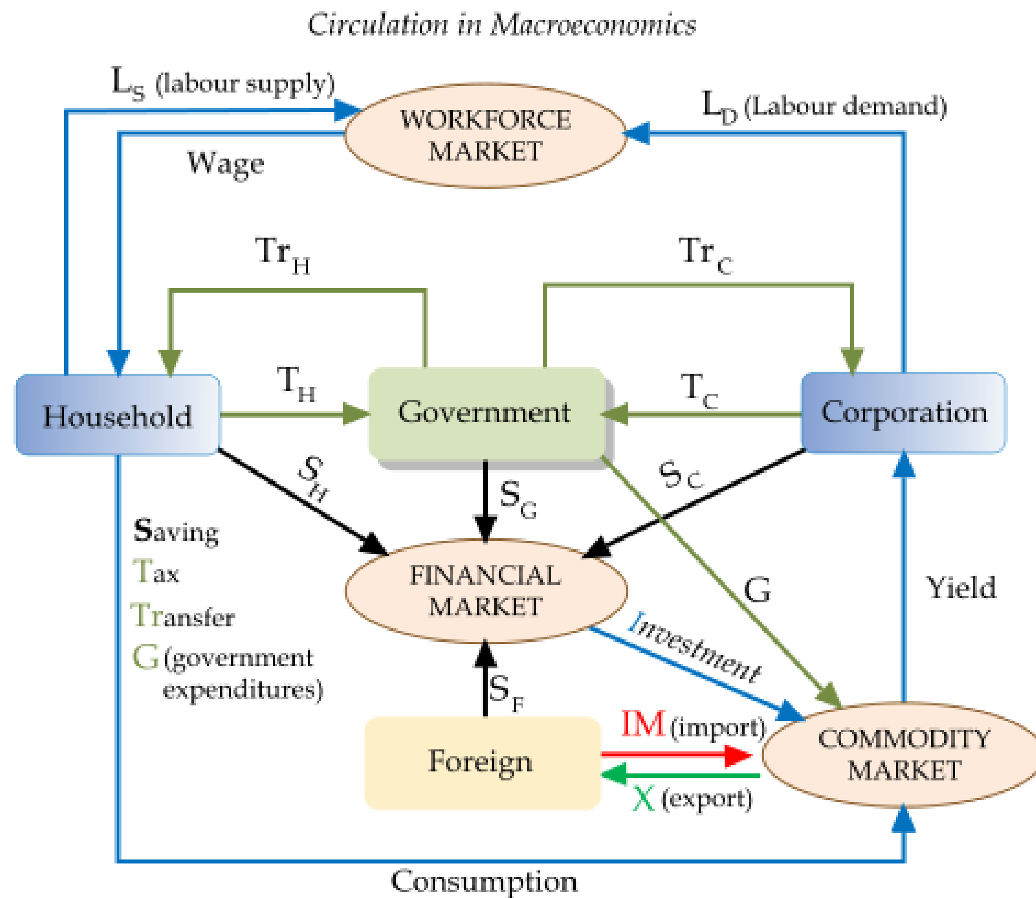


Plan



Introduction – Definition - Macroeconomics

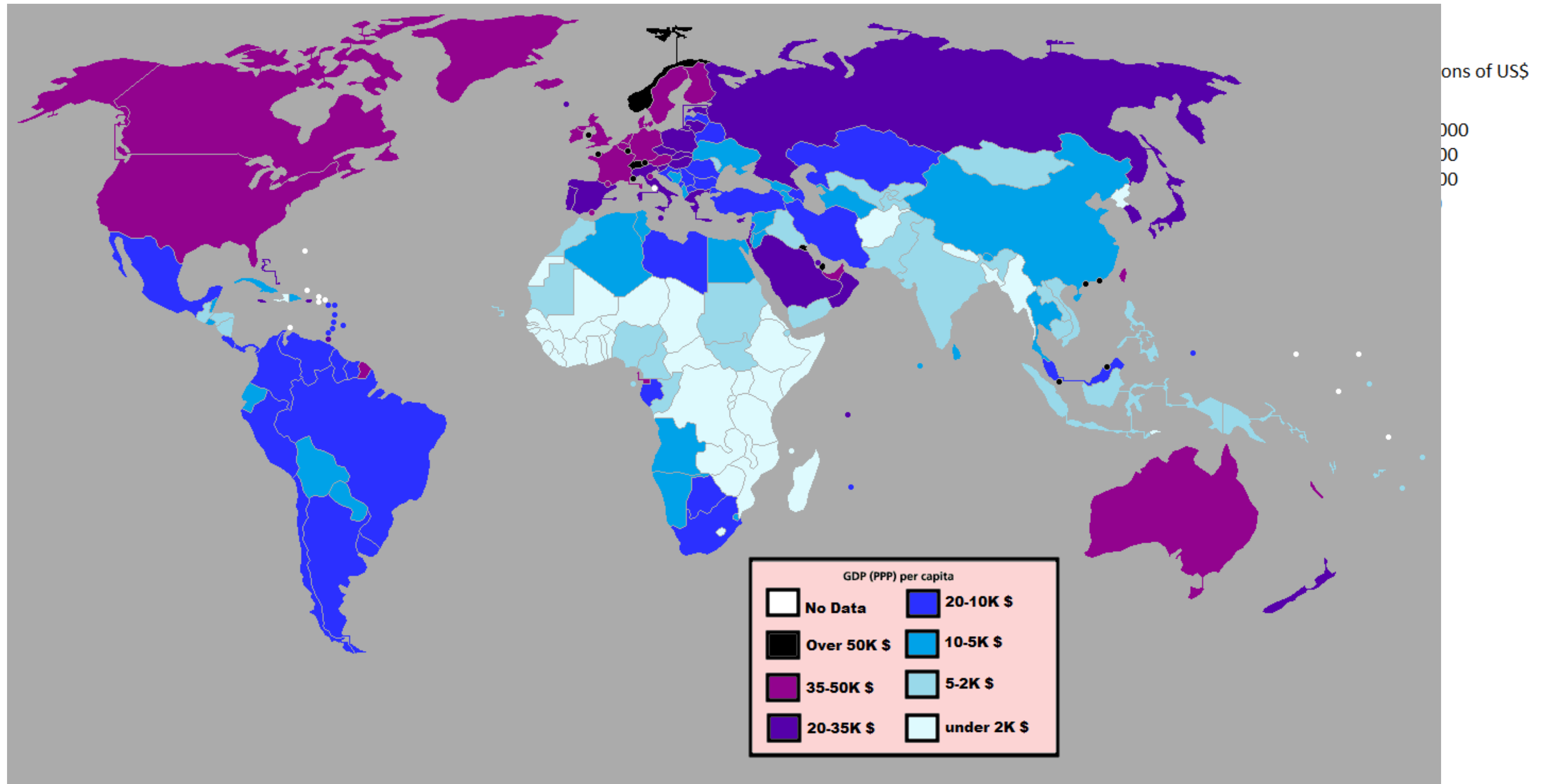
Study of the overall aspects and workings of a national economy (i.e. income, output) and the interrelationship among diverse economic sectors



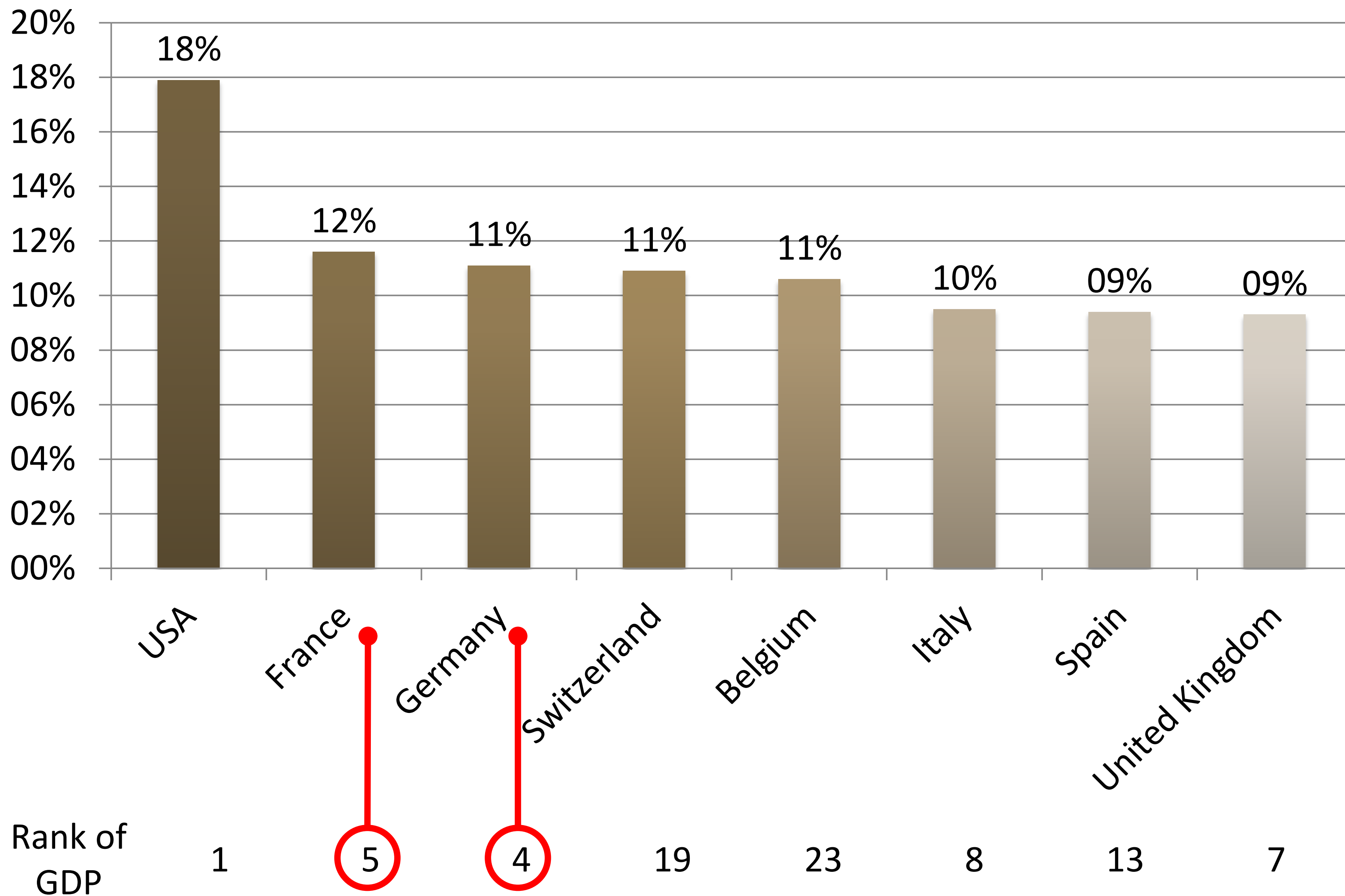
Introduction – GDP

Gross domestic product (GDP) is the market value of all officially recognized final goods and services produced within a country in a given period of time.

GDP per capita is often considered an indicator of a country's standard of living.



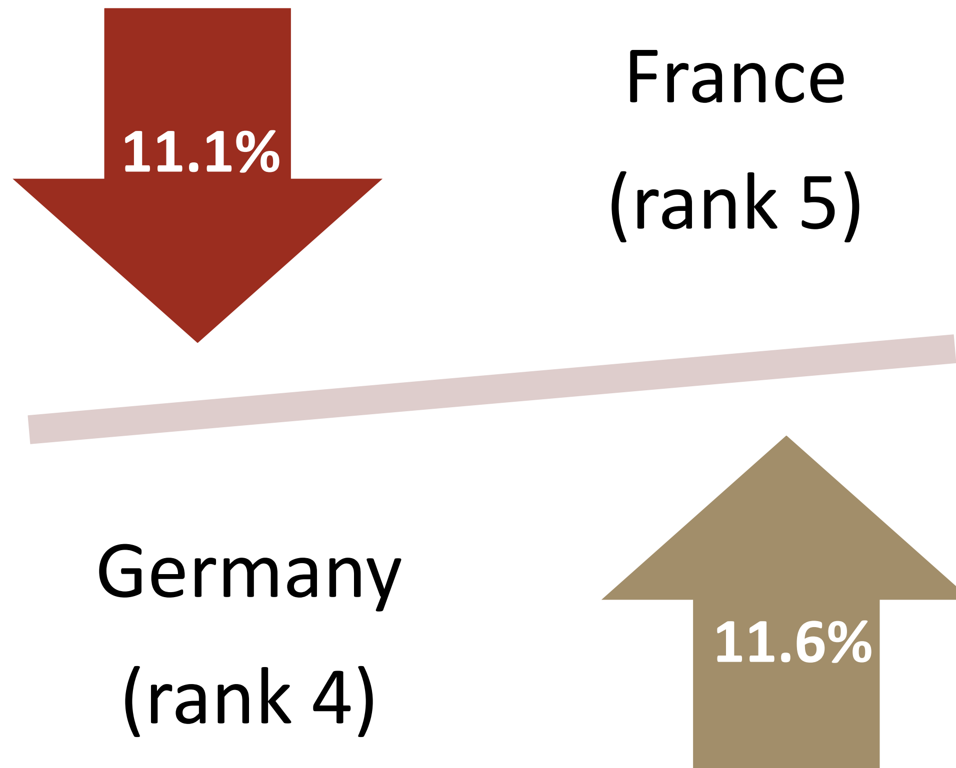
Introduction – Related health costs



*http://donnees.banquemondiale.org/indicateur/SH.XPD.TOTL.ZS

CHUV

Introduction – Related health costs



German people probably consum more health than French people

Introduction – Evolution of the % GDP

	Health costs (% of GDP) 95-2011*
USA : + 4.3 points	[13.6 - 17.9]
France : + 1.3 points	[10.4 - 11.6]
Switzerland : + 1.5 points	[9.3 - 10.9]
Germany : + 0.9 points	[10.1 - 11.1]
Belgium : + 3 points	[7.6 - 10.6]
Italy : + 2.3 points	[7.2 - 9.5]
Spain : + 2 points	[7.4 - 9.4]
United Kingdom : + 2.6 points	[6.8 - 9.3]

*http://donnees.banquemondiale.org/indicateur/SH.XPD.TOTL.ZS

Introduction – Evolution of the % GDP

If Growth of healthcare **>** Overall growth of GDP **then** Growth of healthcare costs

Reinforcement of caregiving

*http://donnees.banquemondiale.org/indicateur/SH.XPD.TOTL.ZS

Introduction – Differences between countries*

Countries	Per capita in 2011 ($)	Rank in health care spending (world)
Switzerland	9121	1st
Norway	8987	2nd
USA	8608	4th
United Kingdom	3600	19th

Switzerland and Norway have expenses more than 50% of the mean countries of the OECD.

Germany and France have the same expense (GDP is bigger in Germany)

France has half of the expenses of the USA but they use 35% less of the GDP for healthcare.

*http://donnees.banquemondiale.org/indicateur/SH.XPD.TOTL.ZS

Introduction – Paradox of these numbers

Are we getting less care in United Kingdom?

- Ratio prevention - treatment

Doctors reveive money from HMO -> don't provoke them to act

Prevention

Filter of cost-efficacy for the reimbursement

Investment that gives the best points of healthcare

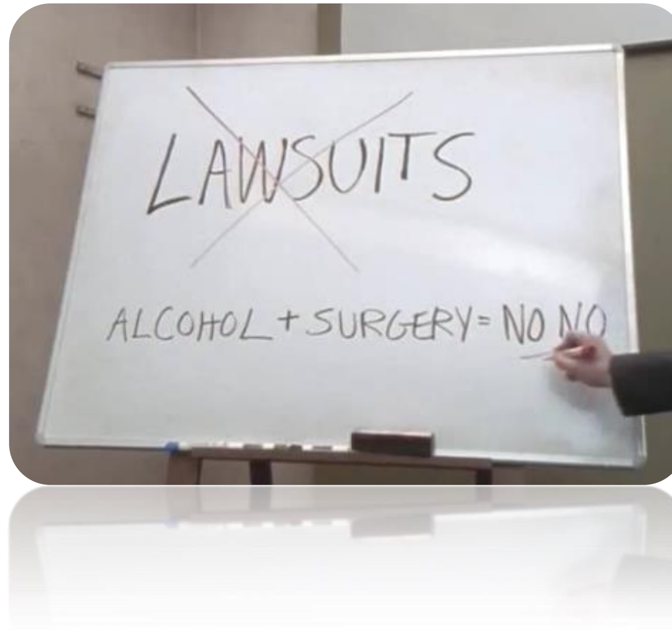
Restriction access for some drugs

Collective approach on healthcare

Introduction – Paradox of these numbers

Are we getting better care in the USA?

•Why 17.9% of the GDP?



Structural components (financial)

Sociological components

Doctor's fee are high (insurances for trials)

Spectrum of the population less covered by the insurances

Introduction – Paradox of these numbers

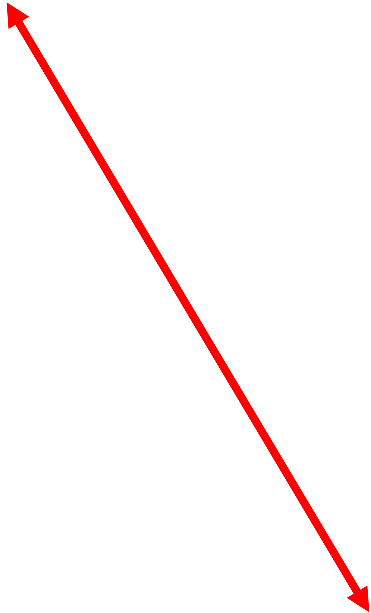
Are we getting better care in the USA?

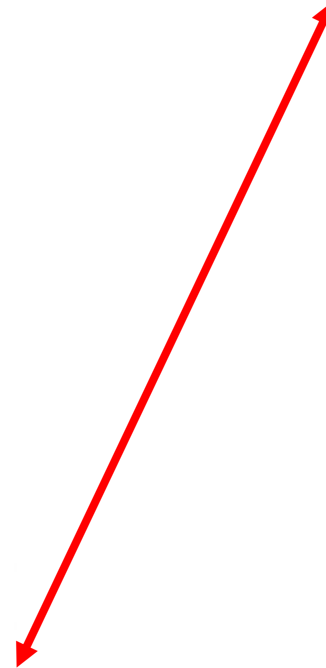
- Why 17.9% of the GDP?

More answer.....

Control over the costs – Control and regulation

3 examples





Control over the costs – Things in common

Independent agency of « Health Technology Assesment » (HTA)

Medicalization of the decision-making process

Has to evaluate the reimbursement of medicine and medical device

1

- Not only for the registration but also need to follow up

2

- Make recommendations for the healthcare professionnal for the routine

3

- Develop a public policy perspective of health and its evaluation

Control over the costs – Their differences

Health system

- National funded with everyone's tax (United Kingdom)
- Insurance (France and Germany)

Their place in the health system

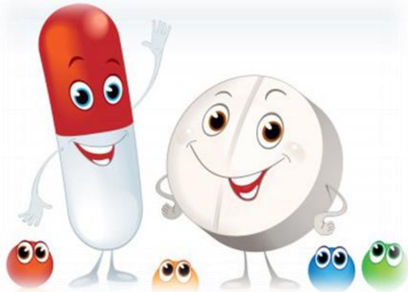
- Recomendations' trends (France & Germany) vs decisions' trends (United Kingdom)

Place in health economy

- Important for everybody
- Central in the United Kingdom (filtration of the innovation)
- More auxiliary in France and Germany

Control over the costs – Medical proof required

HAS
HAUTE AUTORITÉ DE SANTÉ



Comparison of one medicine to the gold standard

Combine the medical proof and the level of price

Choose the best strategy in order to have the best ratio cost-benefit….

…or to recommend the strategy which has the best cost-efficacy?

If not the cheapest solution? (cost minimization)

Control over the costs – Specifications

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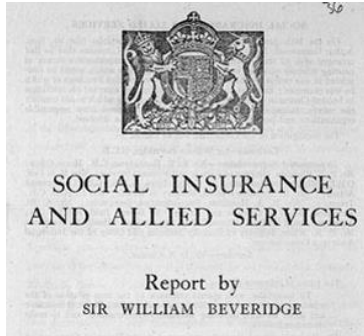
Separation between the technical and economical evaluation

Importance of the negotiation of the price

Concept of a positive list

Re-shaping of the health system
- Center for orphan indications
- Medicine -> approved specialist (e.g. Thalidomide)

Control over the costs – Difference with the NICE



Beveridgian model (financed by the state budget) with a strong link with the political power

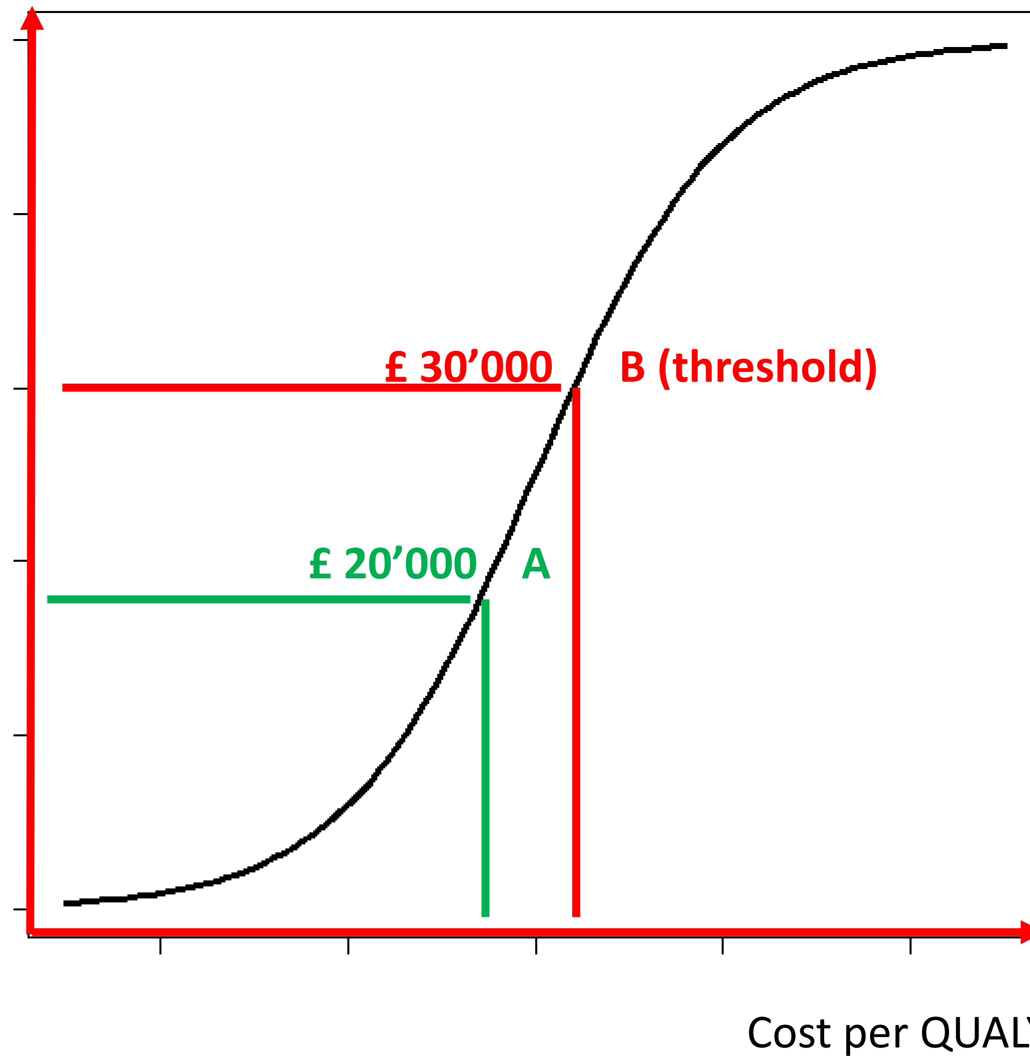
Need for the healthcare products and for the organisations to have a medico-economic evaluation

No separation between church and state (influence)

Control over the costs – Cost per QALY (limit)

NHS
National Institute for Health and Clinical Excellence

Probability to be rejected



But the United Kingdom’s system evolve……

Control over the costs – Cost per QALY (limit)

NHS
National Institute for Health and Clinical Excellence

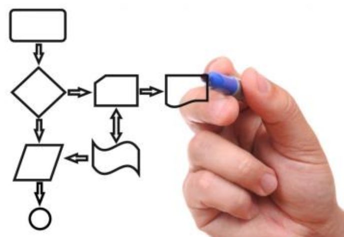
Recommandations of use for products that have a

cost-efficacy > £ 30’000/QALY

Molecules	Indications	£/QALY
Trastuzumab	breast cancer	37’500
Temozolomide	glioma	35’000
Imatinib	chronic myeloid leukemia	36’000 to 65’000
Bortezomib	myeloma	34’500
Permetrexed	mesothelioma	34’500
Sumatinib	kidney cancer	55’000

Control over the costs – NICE & documentations*

NHS
National Institute for Health and Clinical Excellence



399

Interventional procedures

295

Technology appraisals

178

Clinical guidelines

46

Public health guidance

*http://www.nice.org.uk/#panel3

Control over the costs – Decisions of the NICE

NHS
National Institute for Health and Clinical Excellence

Final decision made by

Scientific point of view

- Validity of evidence based
- Consistent subgroups
- Potential generalizability
- Measure of the quality of life
- Considering the uncertainty

Social point of view

- Severity of the illness
- End-of-life care
- Age
- Inequality in health

Control over the costs – IQWIG

IQWiG Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen

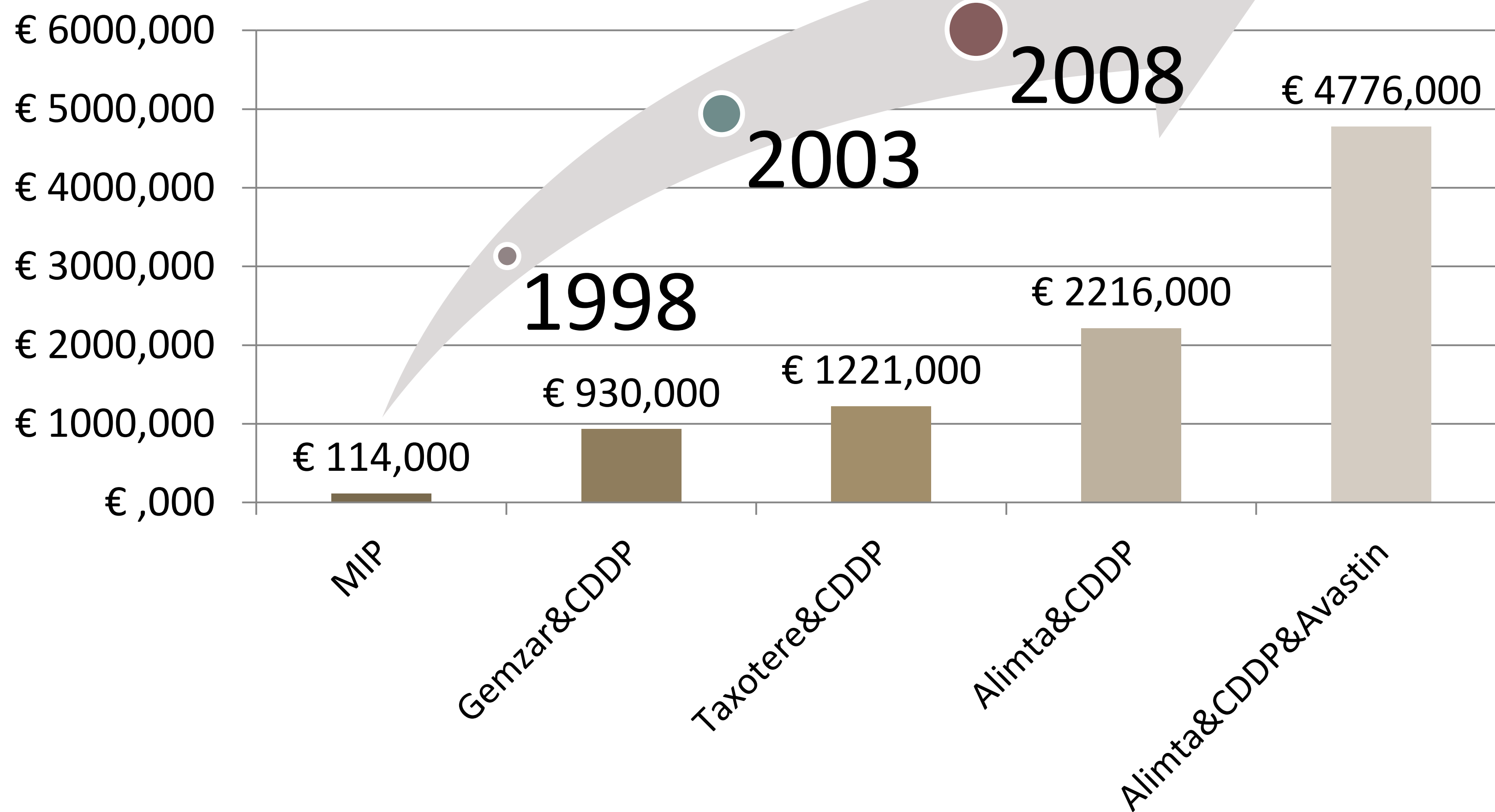
Few negotiation on the price of health products in Germany

Regulation more targeted over an authorisation to prescribe

No integration of pharmacoeconomic studies in the process of reimbursement

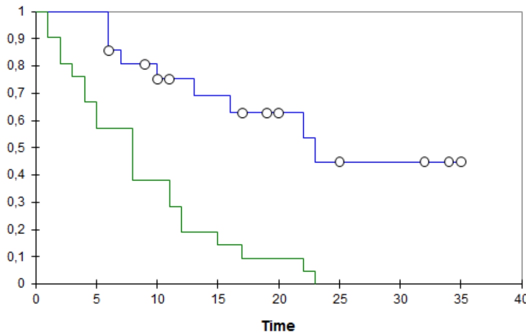
Similar with France but there are decisions that are made for health professional

Microeconomic level – Costs evolution of cancer



CHUV

Microeconomic level – Limit of this analysis



No consideration of the efficacy data

- Increase of the progression-free survival? Survival?
- Increase of quality of life?

How did evolve the cost at hospital compared with

- Hospital day care?
- Ambulatory care?

Pharmacoeconomy – Context of development

The evaluation of practices and strategies of treatment are in the center of the preoccupations of healthcare industry players

The **clinical approach** is insufficient to qualify in itself the effective interest of a therapeutic strategy

The **budgetary approach** is insufficient in the decision-making.

Pharmacoeconomy – Context of development

Tools to measure our activity (i.e. DRG)

Accreditation of the hospitals

Coordination between hospial care and ambulatory care

Pharmacoeconomy – Context of development

Therapaeutic innovation = Medicine at a higher purchase cost

Decision to make allocation of scarce resources (unstrechable)

But dynamic climate favourable to the reallocation of ressources and a discussion on the organizations

Pharmacoeconomy - Definition

Analysis of the costs and consequences of therapeutic strategies in terms of health

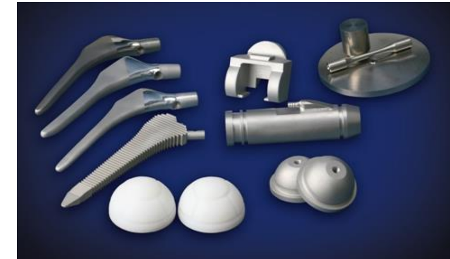
Clinical data

Financial data

Pharmacoeconomy - Definition

Medicine

Medical devices



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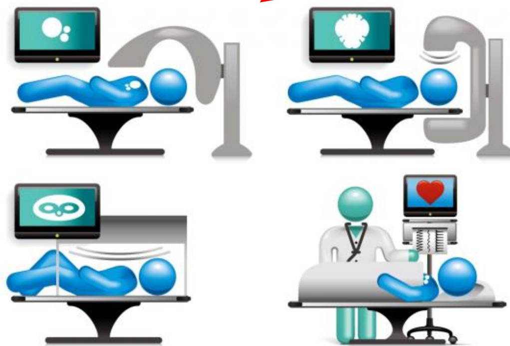


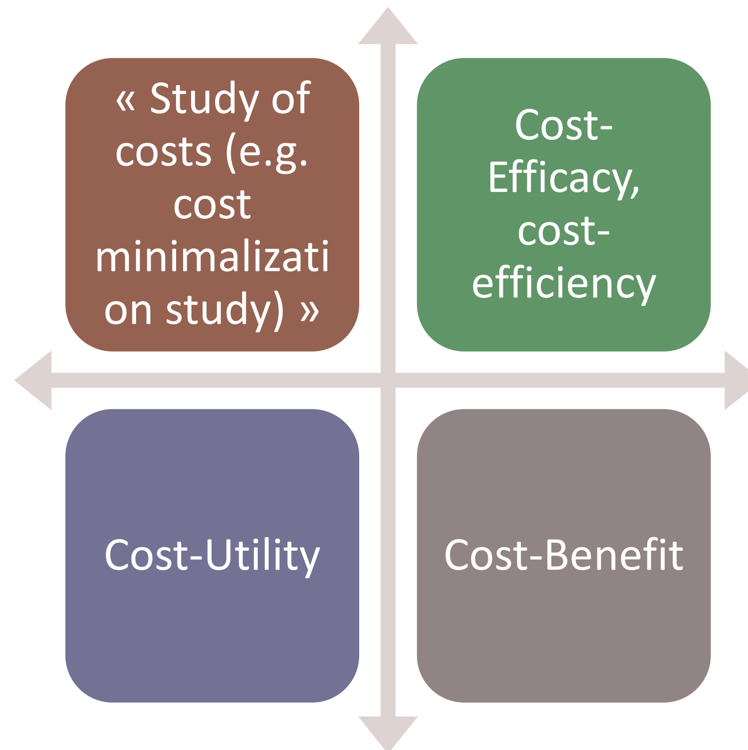
Diagnostics

Services

Pharmacoeconomy - Definition

The objective is to evaluate the implementation of costs of therapeutic strategies and their clinical consequences

Different types of pharmacoeconomy studies



Global budgetary approach (hospital)

Development of tool for budgetary control more and more efficient

Developpment of more frequent informations and more precise for the prescribers over the cost of precriptions

BUT

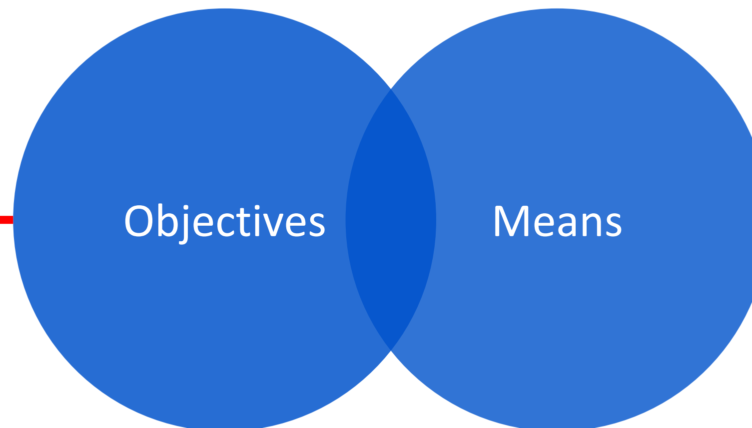
No genuine anticipation over a new market authorization

Not real correlation with the clinical activity (Scoreboard – spending)

Refined budgetary approach (hospital)

To have one expense available per patient

To have the accumulated expense per activity (e.g. idientification of the therapeutic cost of a second line of treatment for one type of service)



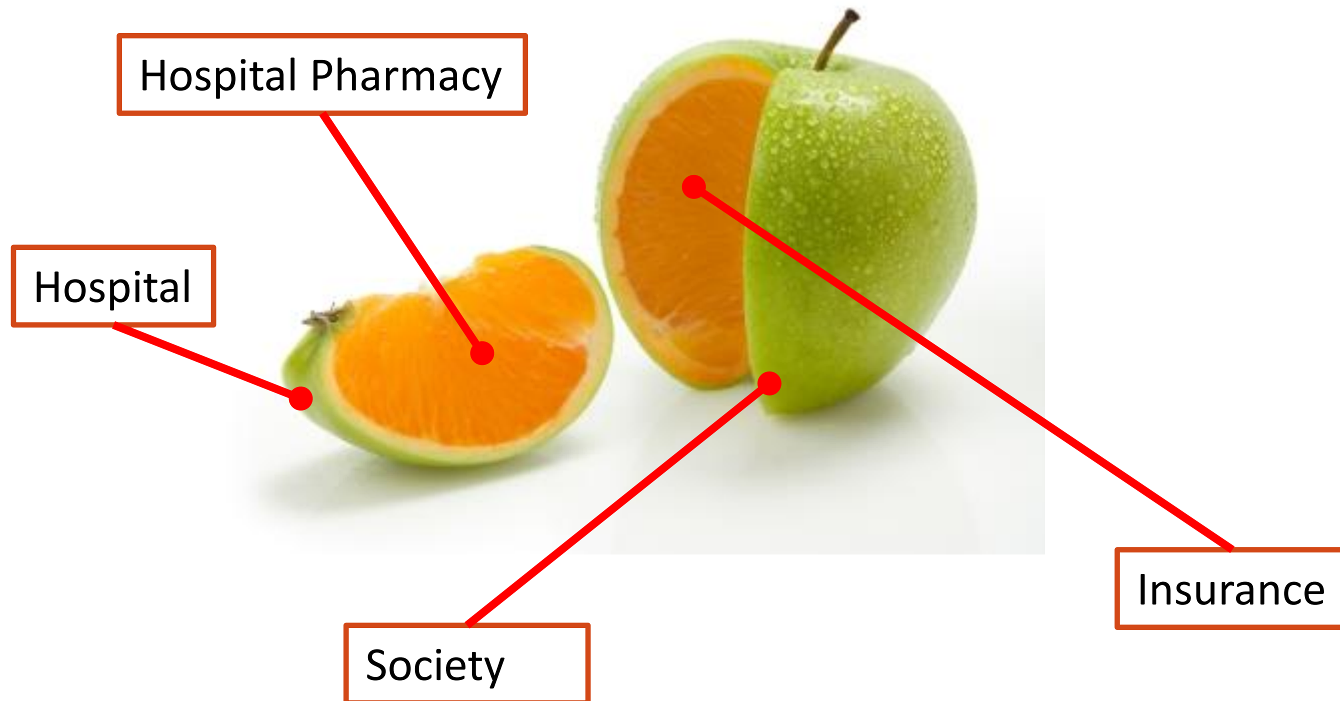
To develop a computer assisted prescription

Linkage of medical data of each care unit

Pharmacoeconomy approach

To surpass the simple budgetary context in order to situate the medicine through the consequences of its prescription:

Depending where you look, you **change** your point of view



Pharmacoeco analysis = dynamic of thoughts

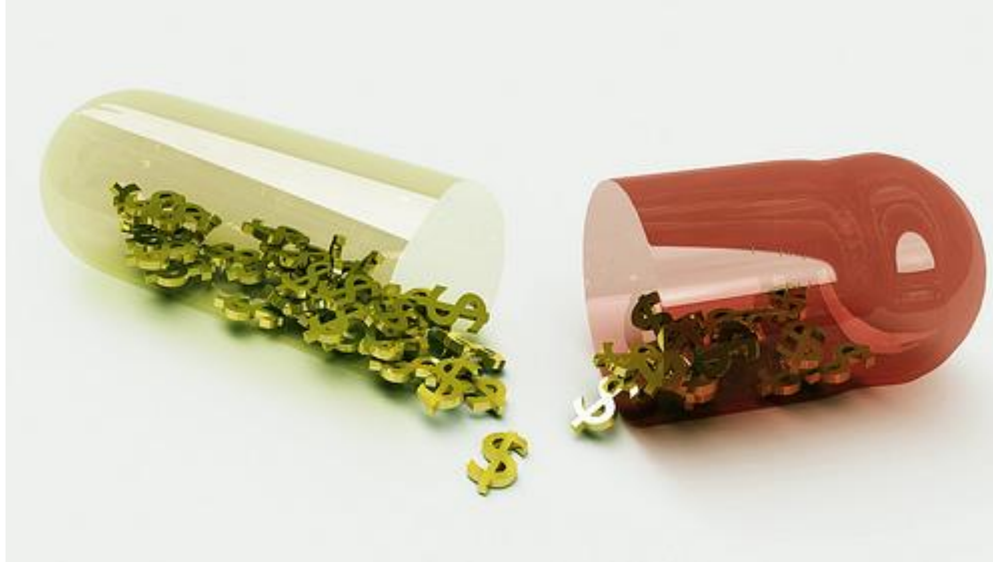
Over the modalities of care
(hospital – day hospital – ambulatory)

Over the analysis of the systems of healthcare and the distribution between the different providers

Pharmacoeconomy = provision of measurement tools (under certain conditions) for one medical field to another

Why pharmacoeconomy in hospitals?

The budget for drugs is not a little bit of the hospital spending (we even don't talk about a budget anymore)



- Within 20 years, it grew from 4 to 10% of the hospital budget
  - …and the budget continue to evolve
  - Arrival of costly therapeutic innovation in different fields such as orthopedie, ophtalomology, etc…

Things that increase interdiscipInary work

Bringing together the strategic expertise of the Group encouraged by:

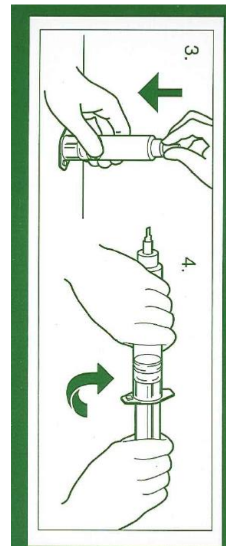
- The regulatory contraints
- The accreditation

The increase of the power of hopital board decision and the dynamic of the pole

- Committees of drugs and medical devices
- Commissions of equipment and workforce

Everybody does not know everything.
You need the other to understand and the others need you in order to understand

Introduction – The choice for propofol



Ready to use syringe

Euros 31.24 the unit

Vials

CHF 14.83 the unit

Just a teaser…

Where are the costs?

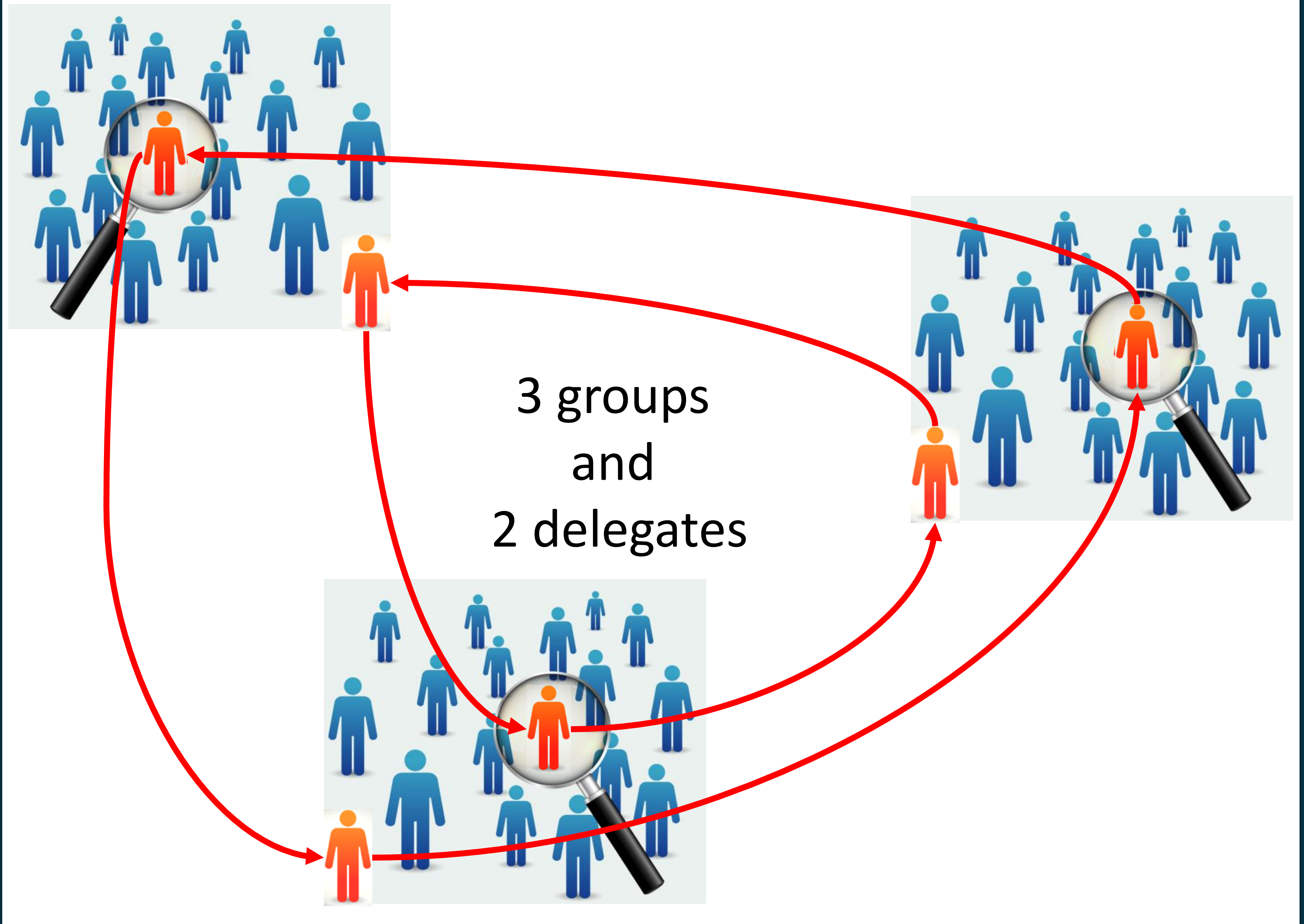
PHARMACOECONOMY
of propofol

END 2013

Coming soon…

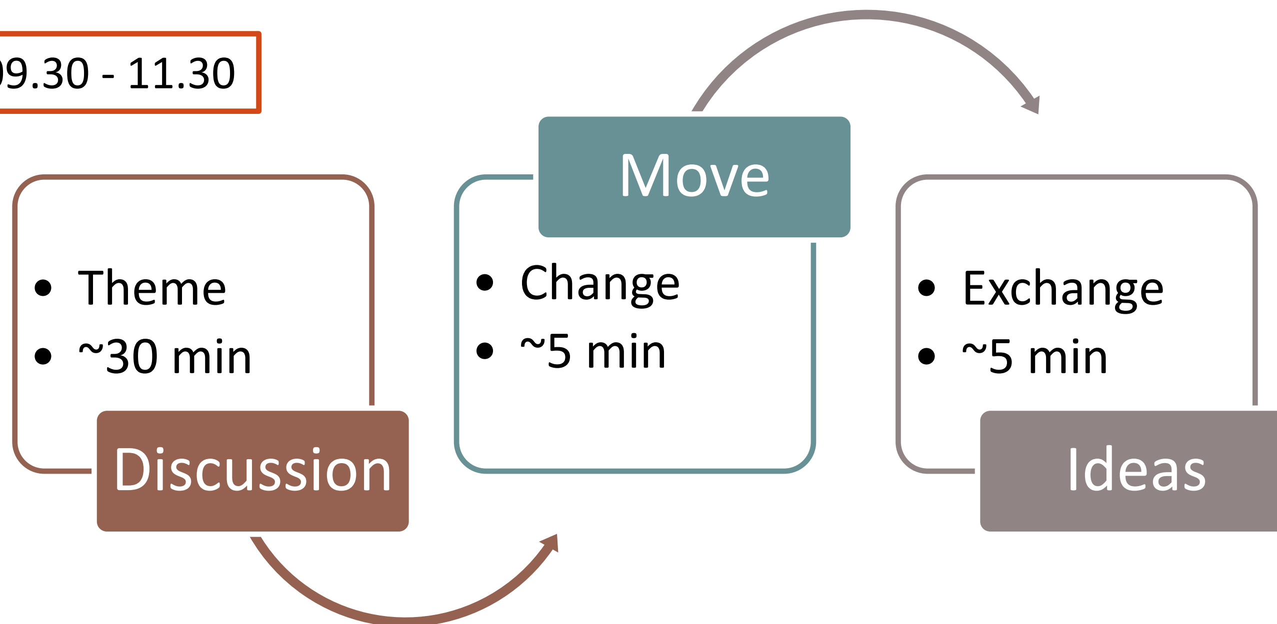
Workshop

World Café manner



3 themes in the Workshop

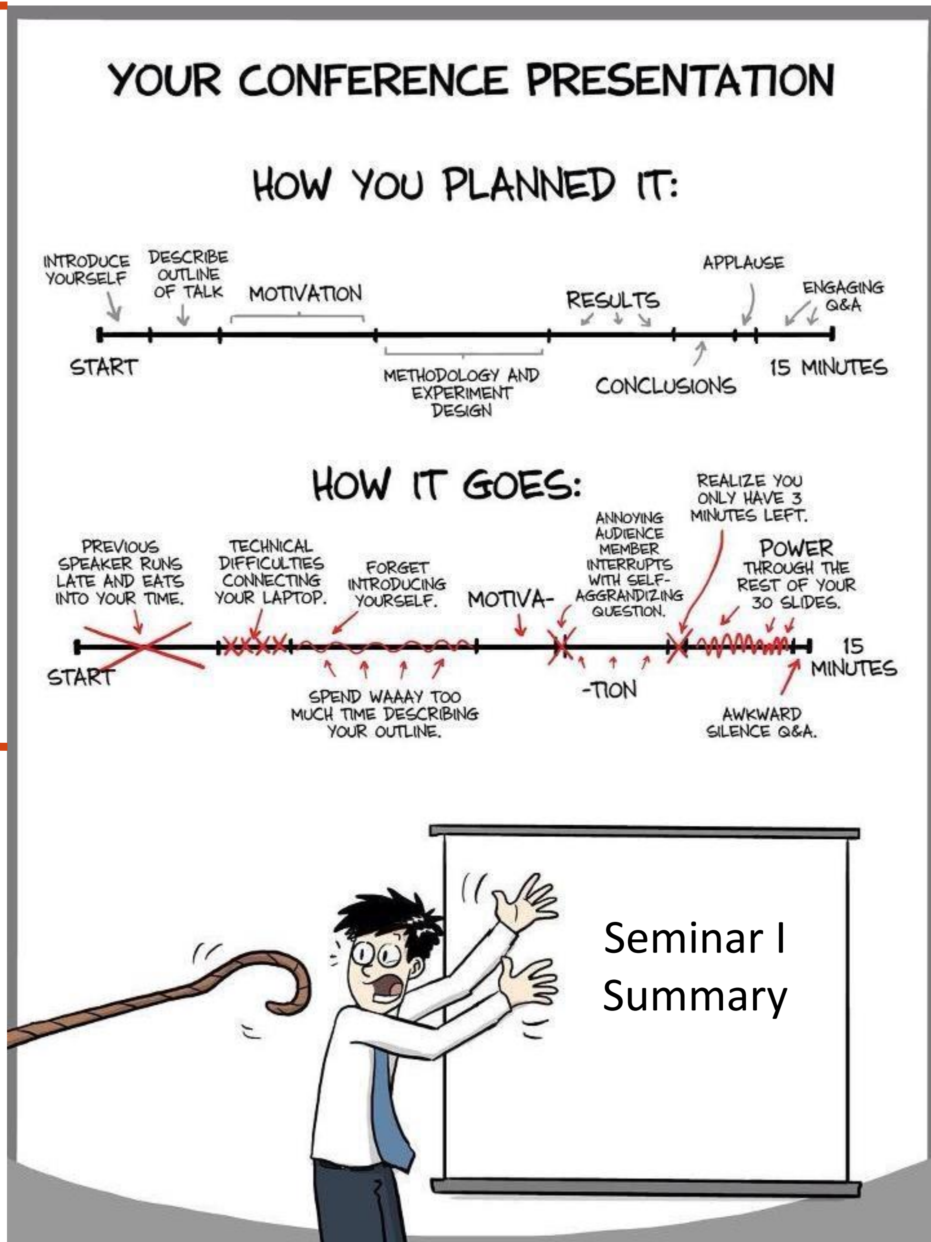
1. The primacy of politics and economics over hospital practice
2. Government approaches and chances of success: regulation, deregulation, global budgeting, competition, managed care, rationalisation, lean management (and combinations thereof)
3. Quantity and access restrictions: Lessons learnt from DRG and Managed Care implementations



3 themes in the Workshop

From 11.30 - 12.30

15 min per group



The primacy…..

Politics need economic evaluation in order to decide because resources (i.e people, time facilities, equipment, and knowledge) are scarce. Choices must and will be made concerning their deployment, and methods such as “what we did last time”, “gut feelings”, and even “educated guesses” are rarely better than organized consideration of the factors involved in a decisions to commit resources to one use instead of another.

Discussion topics:

•Why not “the primacy of hospital practices over politics and economics?”
•Why without systematic analysis, it is difficult to identify clearly the relevant alternatives?
•Why the viewpoint assumed in an analysis is important?
•Why without some attempt at measurement, the uncertainty surrounding orders of magnitude can be critical?

Government approaches and chances of success

Governments need a bridge between the world of research and the world of decision-making. Health technology assessment (HTA) is an active field internationally and has seen continued growth fostered by the need to support management, clinical, and policy decisions. It has also been advanced by the evolution of evaluative methods in the social and applied sciences, including clinical epidemiology and health economics. Health policy decisions are becoming increasingly important as the opportunity costs from making wrong decisions continue to grow.

Discussion topics:

- What are the common specifications of these HTA agencies?
- What are the differences of these HTA agencies?
- Hospital approaches and chances of success?

Lessons learnt from DRG

The original objective of diagnosis related groups (DRG) was to develop a classification system that identified the "products" that the patient received. Since the introduction of DRGs in the early 1980s, the healthcare industry has evolved and developed an increased demand for a patient classification system that can serve its original objective at a higher level of sophistication and precision. Today, DRG is a standard tool for establishing reimbursements for hospitals.

Discussion topics:

- What is the definition of pharmacoeconomy?
- What are the goals of pharmacoeconomy?
- Is there any possible synergy between DRG and pharmacoeconomy?

Lessons learnt from DRG

WE WERE WARNED

2012

G-DRG

Lessons learnt from DRG

SUISSE MONDE SPORTS FAITS DIVERS PEOPLE LOISIRS SOCIÉTÉ ÉCONOMIE

Sciences Environnement Images

Il manque des millions aux hôpitaux universitaires

SANTÉ — Le financement à la prestation (DRG) met en danger les hôpitaux universitaires. En cause: la rémunération insuffisante des prestations qui induit un manque à gagner de plusieurs millions en 2012.

Mis à jour le 21.06.2013 2 Commentaires

En 2012, le manque à gagner a été de 32 millions pour le CHUV.
Image: Keystone

Windows

A fatal exception 0E has occurred at 0137:BFFA21C9. The current application will be terminated.

* Press any key to terminate the current application.
* Press CTRL+ALT+DEL again to restart your computer. You will lose any unsaved information in all applications.

Press any key to continue _

Seminar

often involve an element of mystery. Intriguing questions cause people to wonder, to have a compelling "need to know."

get under your skin, provoking you to investigate, discover, figure out a response or learn more about a topic.

Complex questions set the stage for higher-order thinking.

live in the real world. Look at the questions that captivate nurses, doctors, pharmacists, etc.

don't have one obvious right answer. Open-ended questions have to weigh the pros and cons of potential solutions.

get at core content. They are "meaty," prompting people to chew on important ideas and information.

set the stage for action. They challenge people to ask, "What can we do about this issue?“

cause people to stretch. People may need to learn new skills, interview experts or tackle challenging content as they pursue answers.

matter to healthcare providers and patients. They connect clinical data to financial data

Seminar I summary

The answer of these questions are most strongly influenced by our estimates of the relative merit or value of the alternative courses of action they pose.

Can it work?

- Efficacy

Does it work?

- Effectiveness

Is it reaching those who need it?

- Availability

What's next