

Can the cure be worse than the disease?

*Limitations in the applicability of thresholds to assist in the
health resource allocation decision making process
in developing countries*

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We don't have a
cost-
effectiveness
threshold!!

**The frustrated Latin-
American health economist**



Threshold = Holy Grail



Scope of the presentation

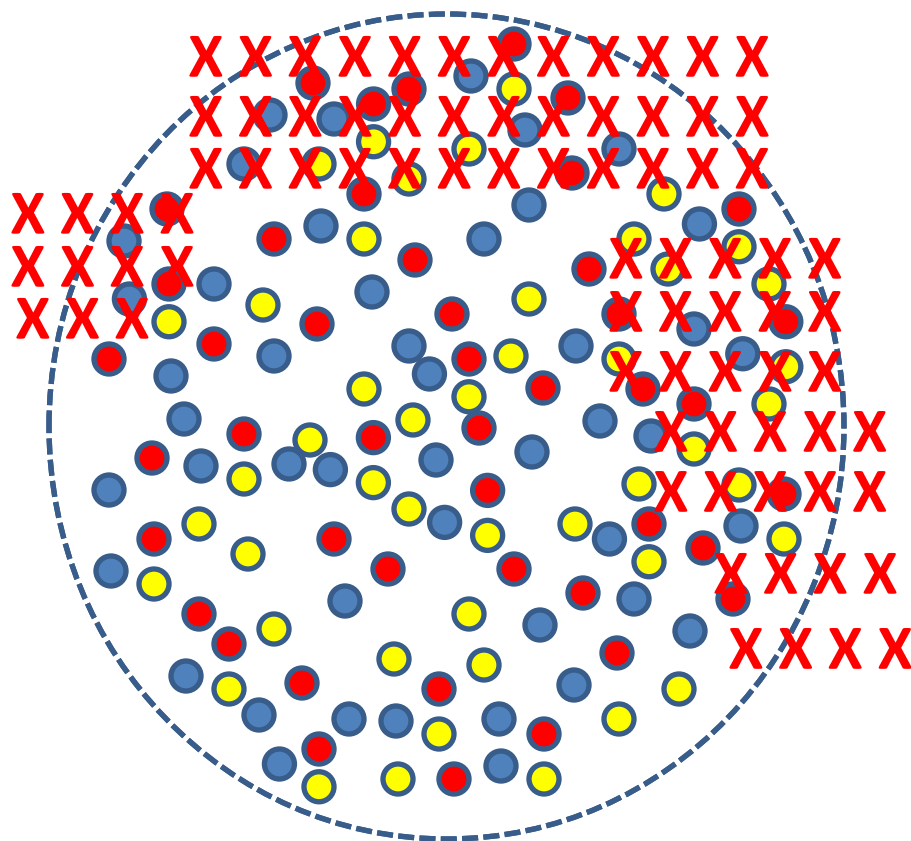
Finding an appropriate threshold, can be part of the solution to our problems?

In Latin America, is it possible to find an appropriate threshold?

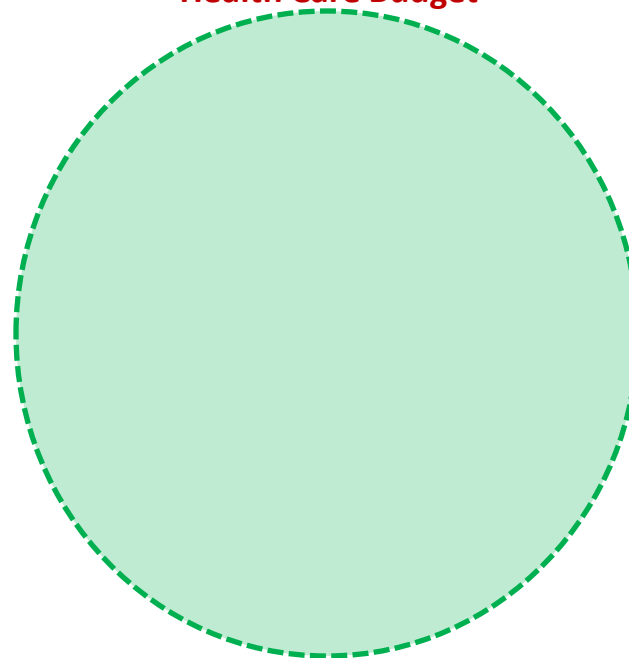
If we are able to define a threshold methodologically valid, can we base our decisions on it?

Even in the case that we can estimate a threshold with the most robust methods, its application in Latin American countries will face anyway many limitations. Many more limitations that its application may have today in countries like Canada, Australia or UK.

All health technologies
(programs, drugs, devices.....)



Health Care Budget



How to best allocate our **limited** funds?

It is important to know which interventions or technologies are "important" (with a highest priority for the society, those that we can not fail to provide). Secure resources to guarantee that these interventions will be available for the entire population.

What services/technologies are less "important"?

Those that if we fail to provide will not greatly affect health or social outcomes.

But defining what is "important", what is a priority, is not easy.

All health technologies
(programs, drugs, devices.....)

Health Economic
Evaluation
(Cost-Utility)



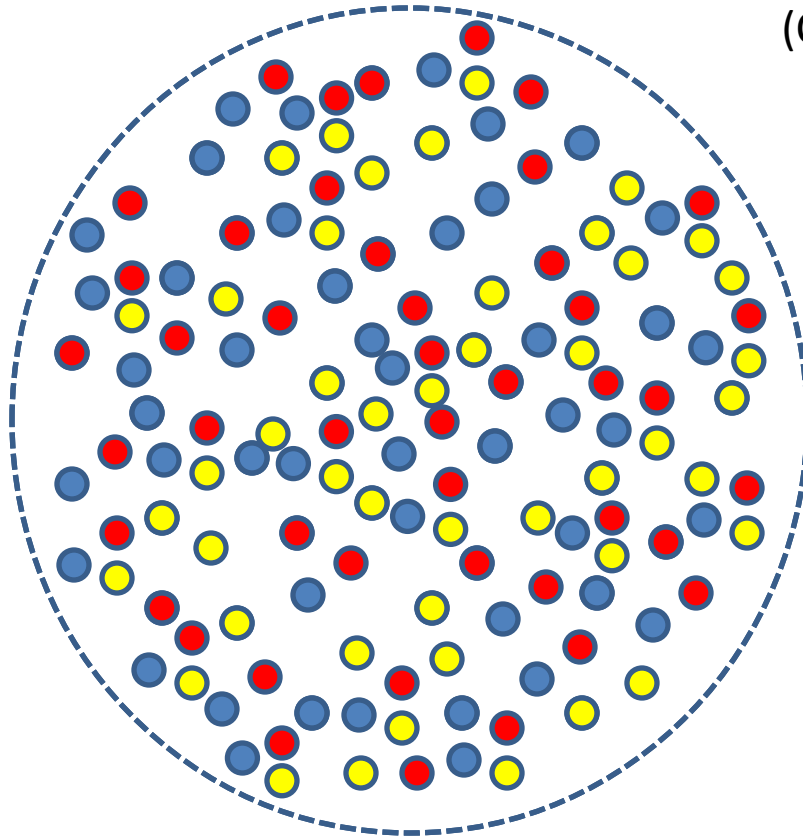
Cost-saving

Very low cost per
QALY/DALY

Intermediate cost
per QALY/DALY

High cost per
QALY/DALY

Very high cost per
QALY/DALY



High priority



Low priority

Other values
(e.g. Social value)



Cost-saving

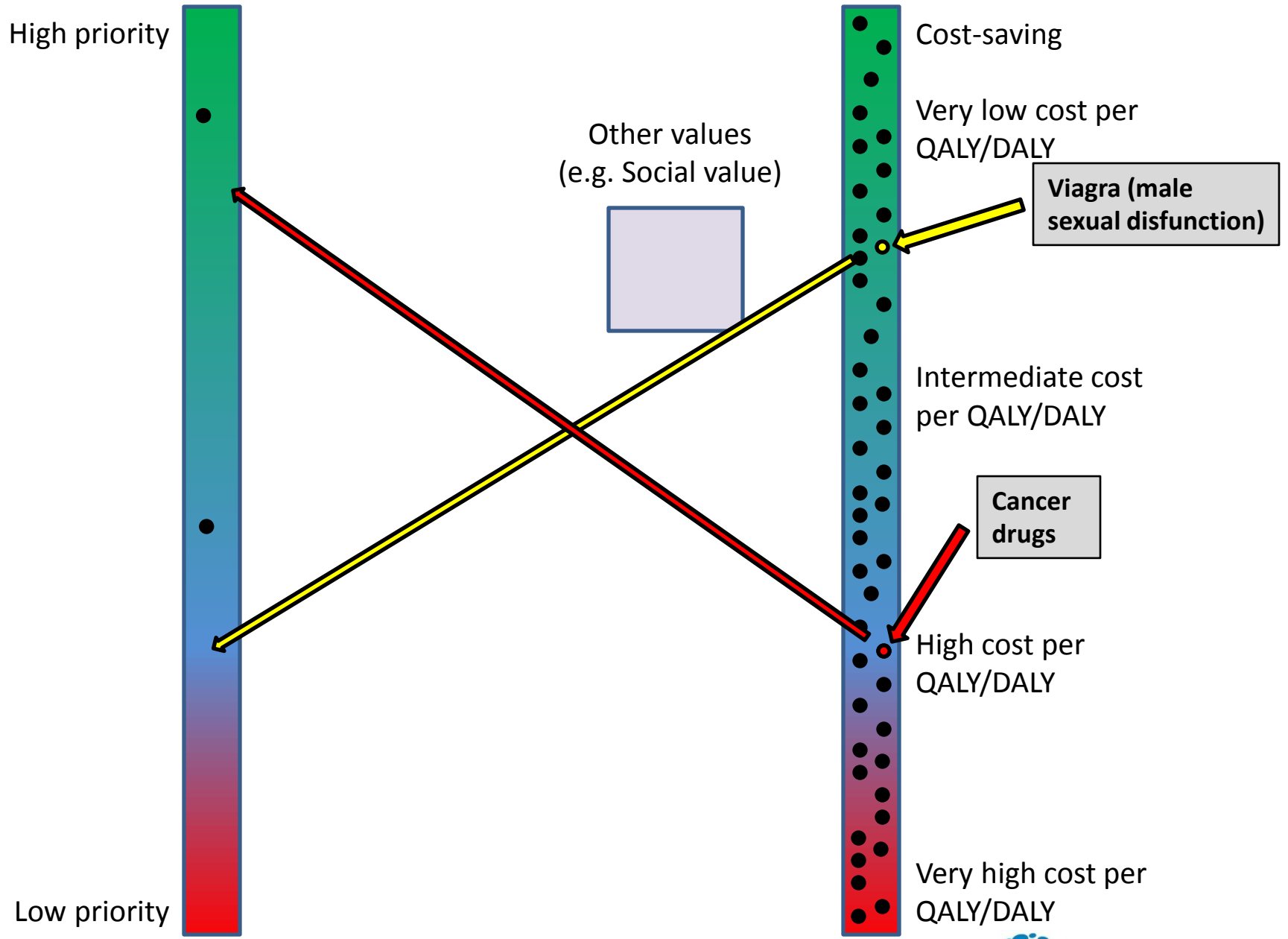
Very low cost per
QALY/DALY

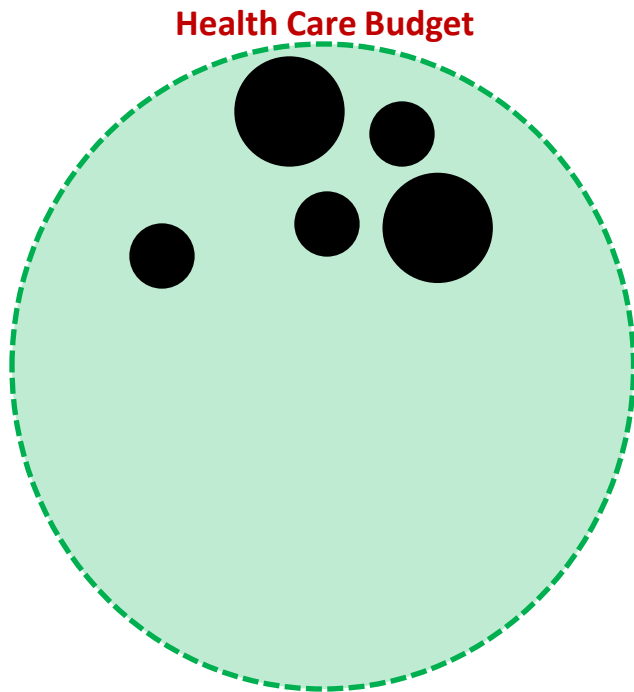
Intermediate cost
per QALY/DALY

High cost per
QALY/DALY

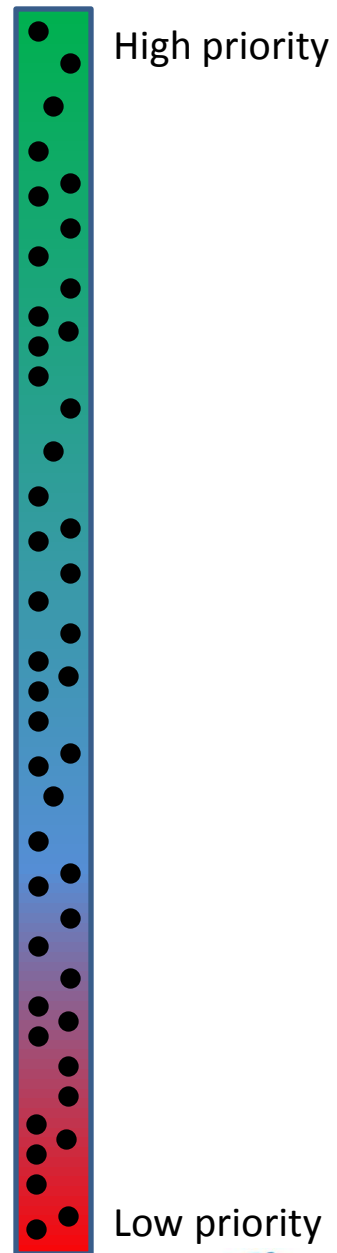
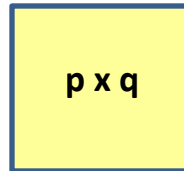
Very high cost per
QALY/DALY

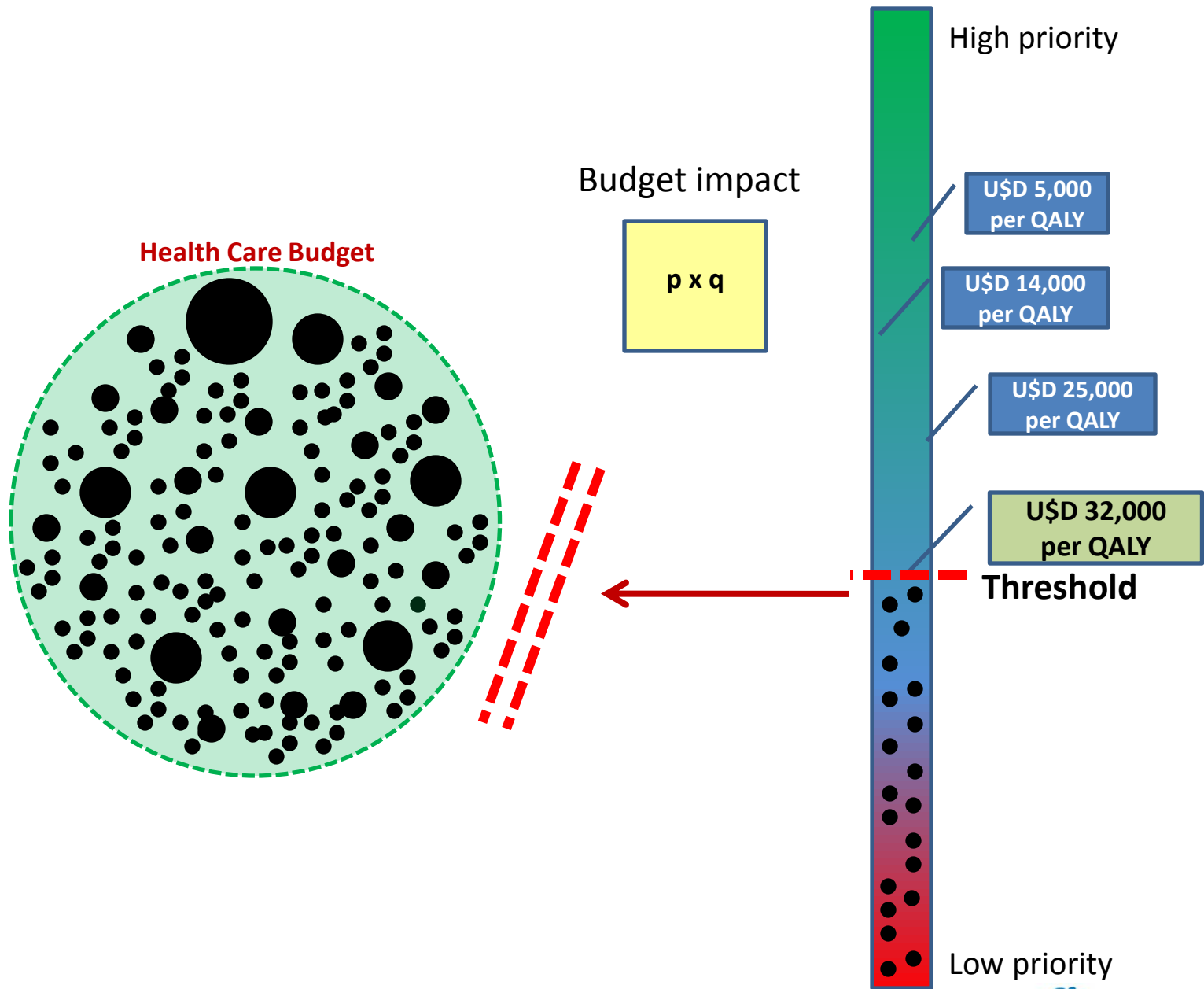




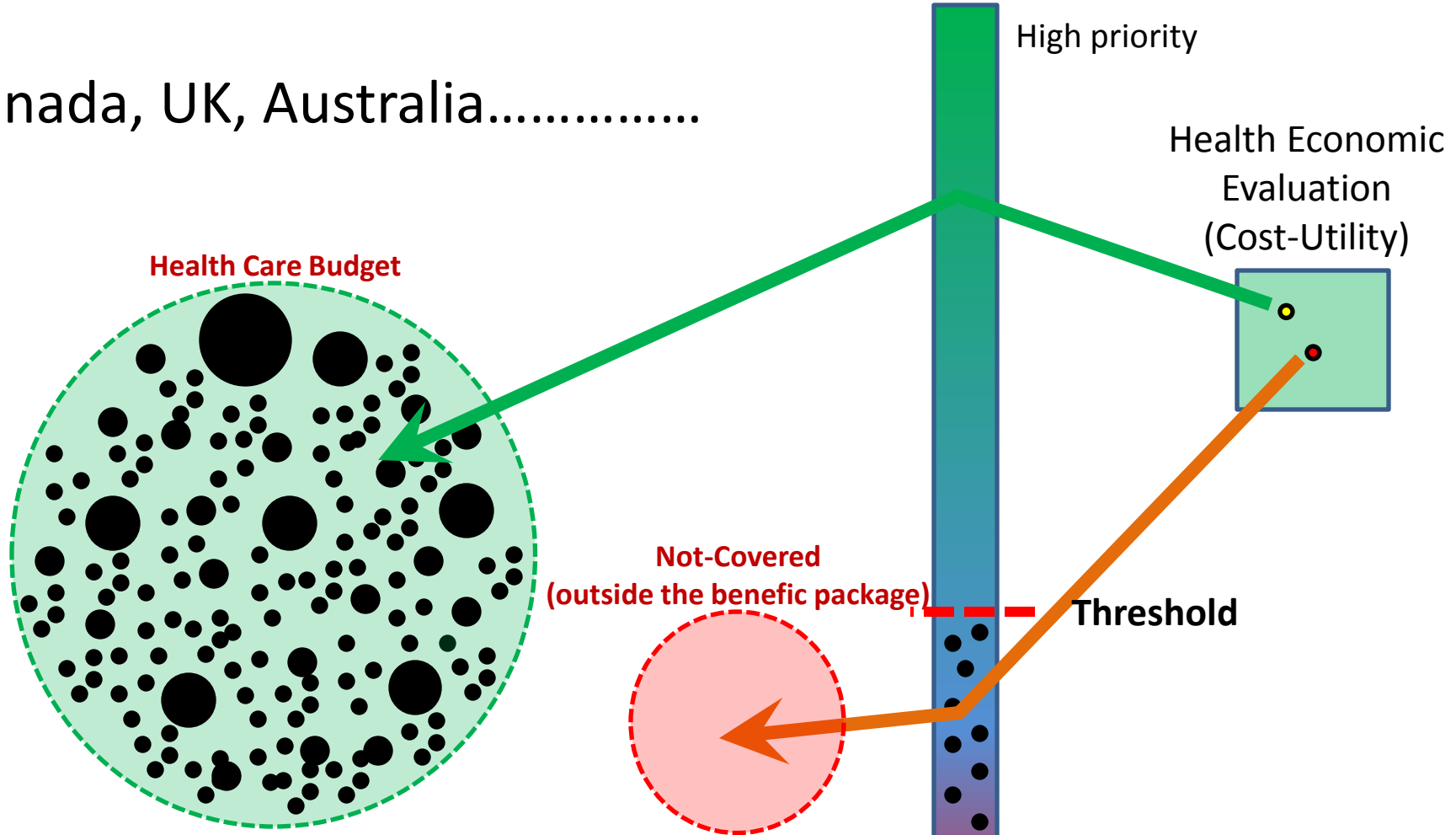


Budget impact





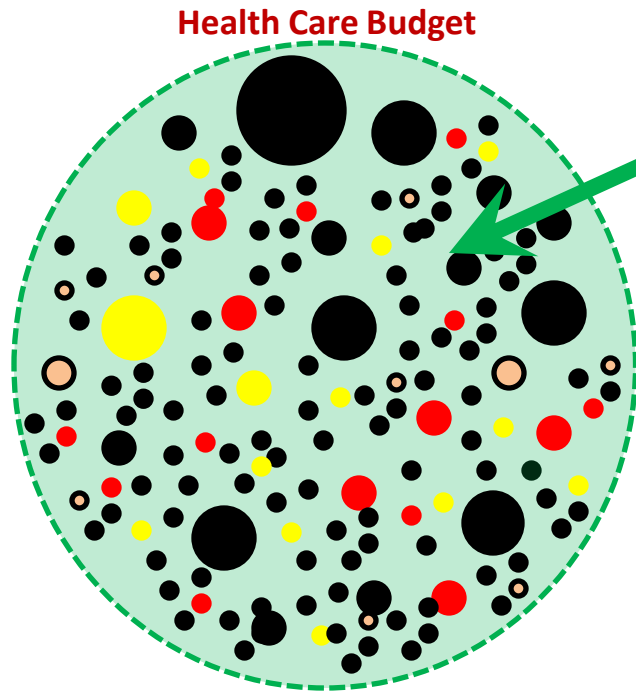
Canada, UK, Australia.....



More transparent decision-making processes
History of HTA & HEE (many health technologies evaluated)
Inefficiencies & Corruption & Inequities under control

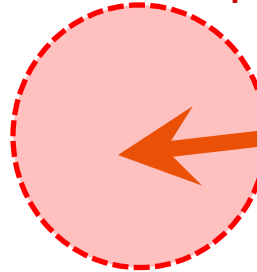


Latin America.....

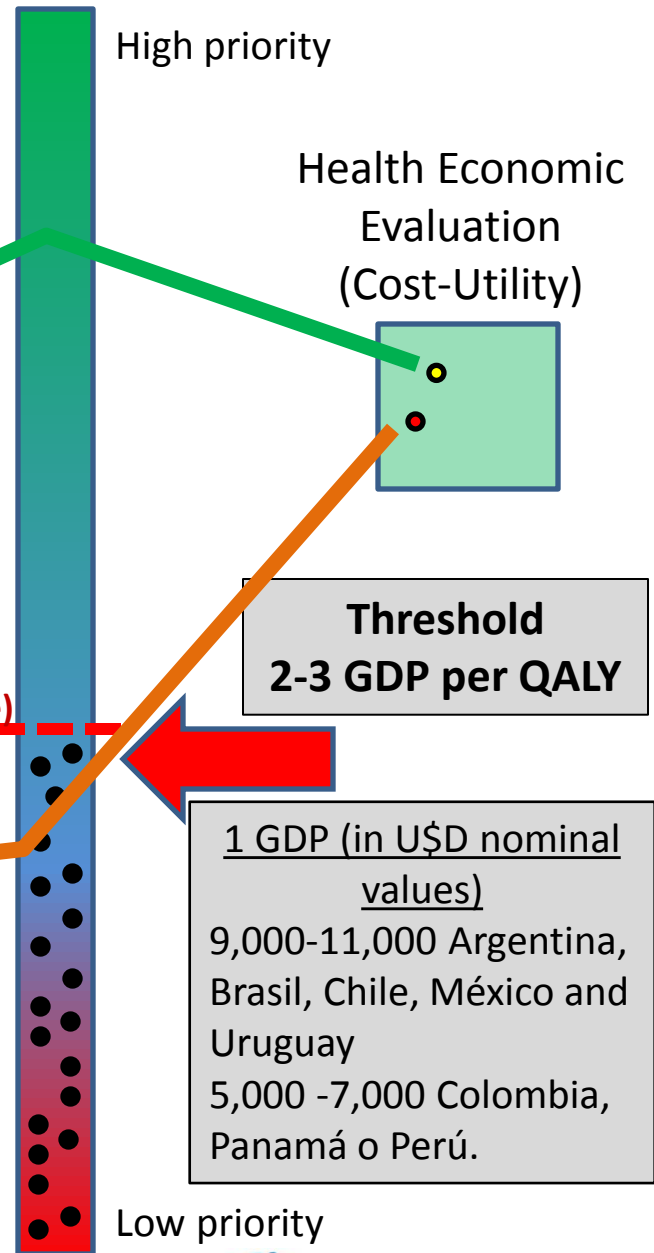


Health Care Budget

Not-Covered
(outside the benefic package)



Inefficiencies - Inequities
 Obsolete technologies
 Corruption
 Lack of transparency in decision-making processes
 No HTA & HEE history (a few health technologies evaluated so far)



High priority

Health Economic
 Evaluation
 (Cost-Utility)

Threshold
2-3 GDP per QALY

1 GDP (in U\$D nominal values)
 9,000-11,000 Argentina, Brasil, Chile, México and Uruguay
 5,000 -7,000 Colombia, Panamá o Perú.

Low priority



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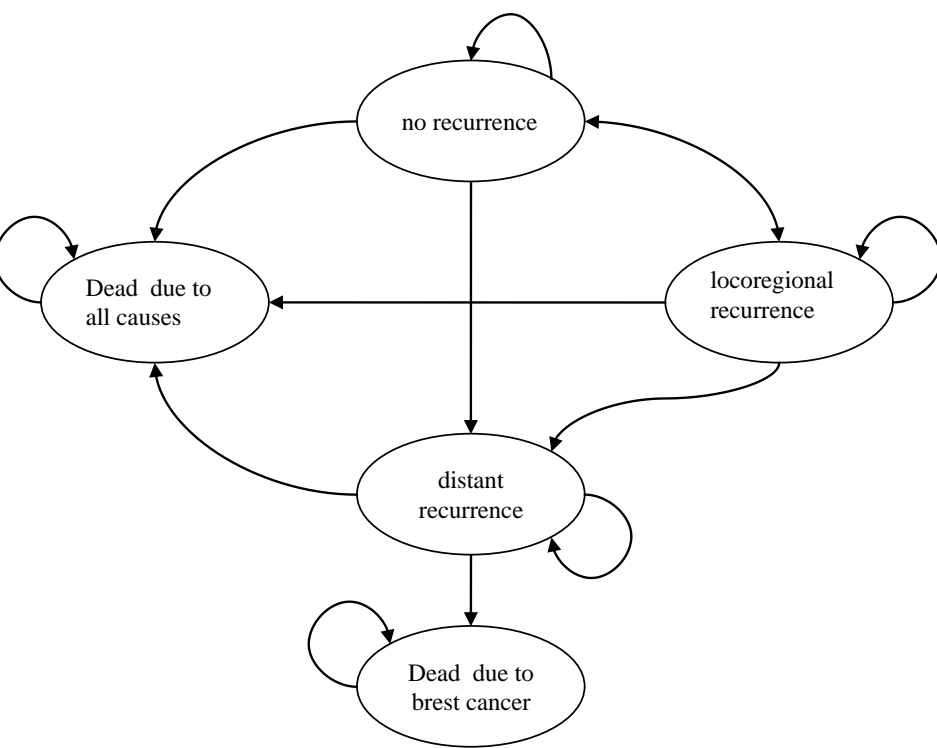
Beyond the validity of any threshold, its application in Latin American (or developing) countries faces many limitations.

These limitations are less related to the threshold in itself but to the characteristics of health systems :

- Inefficiencies
- Inequities
- Obsolete technologies
- **Lack of transparency in decision-making processes.**

Cost-effectiveness of trastuzumab in early breast cancer in six Latin-American countries

Funding: Global Health Research Initiative (International Development Agency –CIDA-, Canadian Institutes of Health Research –CIHR-, Health Canada and the International Development Research Centre – IDRC-).



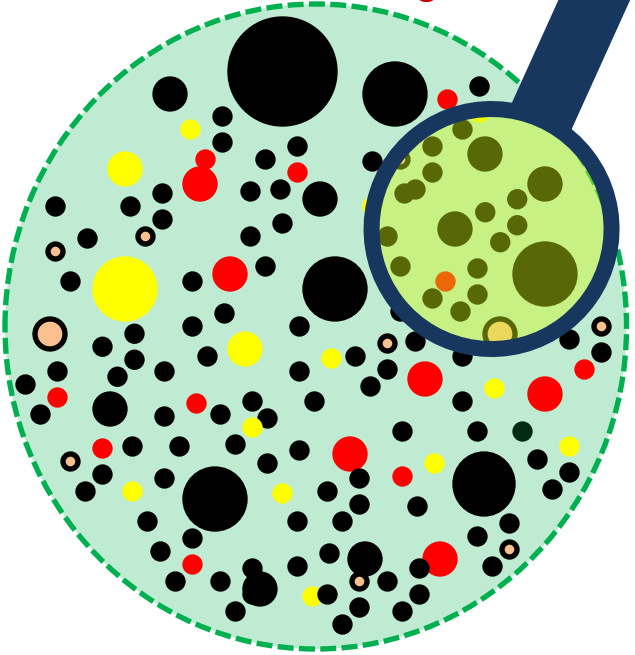
Incremental Cost-Effectiveness ratio (cost per QALY U\$D)

	Brasil	Argentina	Chile	Peru	Bolivia	Uruguay
Epidemiological adjustment only for overall mortality	Above 3 GDP per QALY ⁴	Above 3 GDP per QALY ⁷	Above 3 GDP per QALY	Above 3 GDP per QALY ³	Above 3 GDP per QALY ⁷	Above 3 GDP per QALY ¹
Epidemiological adjustment for transition probabilities (not adjusted for the effect of trastuzumab)	Above 3 GDP per QALY ³	Above 3 GDP per QALY ⁷	Above 3 GDP per QALY	Above 3 GDP per QALY ³	Above 3 GDP per QALY ⁵	Above 3 GDP per QALY ¹
Epidemiological adjustment for transition probabilities (also adjusting for effect of trastuzumab)	85,803	69,716	63,862	50,037	54,599	83,529

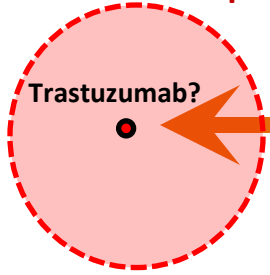
Latin America.....

- Erlotinib for Lung Cancer
- Sunitinib for kidney cancer
- Etanercept in AR
- Capecitabine in breast c
- Rituximab for lymphoma
- Dalfampridine (Ampyra) in Multiple Sclerosis
- Acrylic Vertebroplasty
- PET Scan
- Da Vinci Robot
- Deep Brain Stimulation for Parkinson's Disease.....

Health Care Budget



Not-Covered (outside the benefic package)



High priority

Health Economic Evaluation (Cost-Utility)



Threshold 2-3 GDP per QALY

Low priority

Inefficiencies - Inequities
 Obsolete technologies
 Corruption
 Lack of transparency in decision-making processes
 No HTA & HEE history (a few health technologies evaluated so far)

Final remarks (1)

- Do not be paralyzed by the lack of a perfect threshold (we have bigger problems than that!)
- Thresholds based on GDP or other methods arising in each country can always be helpful as a reference (not to wait for perfect data to estimate a threshold). Thresholds are a tool, not a rule
- It is important to move forward and produce more and more studies of cost-effectiveness and cost-utility in the region
- Start applying explicitly the economic evidence in the decision-making process
- Wait until conditions are ideal can take years. Meanwhile, take into account the limitations imposed by the context

Final remarks (2)

May be countries that are beginning to apply Cost-Effectiveness (CE) evidence to inform coverage decisions should initially:

1. Analyze the CE of various interventions in the context of defined health problems (e.g. cancer). And make decisions only when we have relatively complete information.
2. Focus the analysis on the “best” and “worst”. Promote the use of interventions with a very favorable CE and identify interventions with ridiculously high CE ratios to prevent them entering the public coverage.
3. Produce more information in the region. We need to expand our knowledge base about the cost-effectiveness of interventions in Latin America.

Final remarks (3)

Challenge: to decide where we should invest our analysis efforts and resources.

Does it makes sense to focus all our analysis efforts on just a few high-cost technologies?

Develop a transparent decision making process and attack the inefficiencies of the health system as a whole.

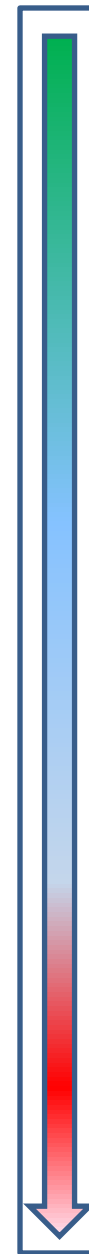
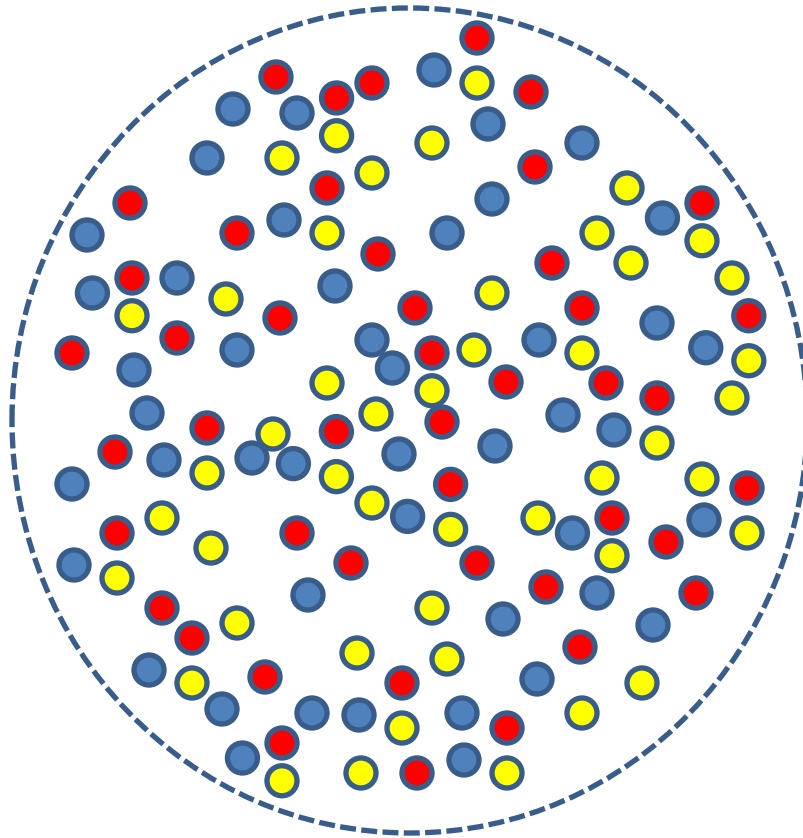
HTA of new technologies is not a substitute for the reform of the health care systems.

In developing countries HTA of individual technologies probably represents only a very small contribution to a big problem. **It is important to find the way in which the HTA methods can be apply to develop better health care systems as a whole.**

Thank you!

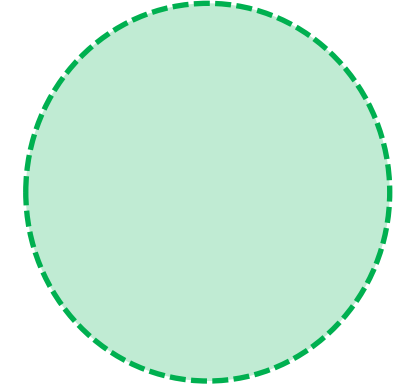
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All health technologies
(programs, drugs, devices.....)



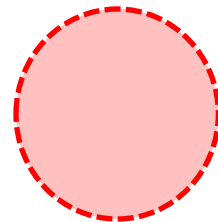
Very important. High priority. We can not fail to provide these services.

Health Care Budget



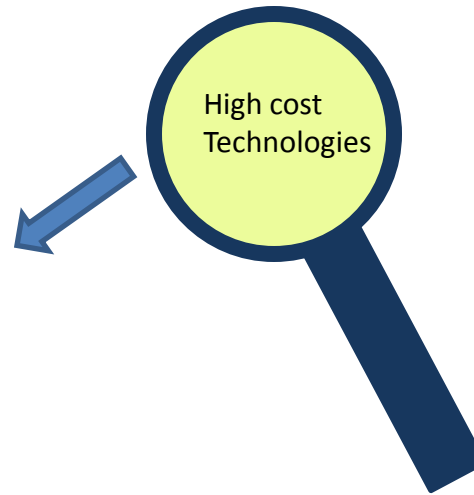
Very minor. No priority. Failure to provide these services will not greatly affect the health or social outcomes.

Not-Covered
(outside the benefit package)



Improve the decision making process (and the health system in general)

**Fragmented systems
Inefficiencies
Inequities
Obsolete technologies
Corruption
Lack of transparency
in decision-making
processes**



It is important not only to analyze the incorporation of new technologies, but also to develop a transparent decision making process and attack the inefficiencies of the health system as a whole.

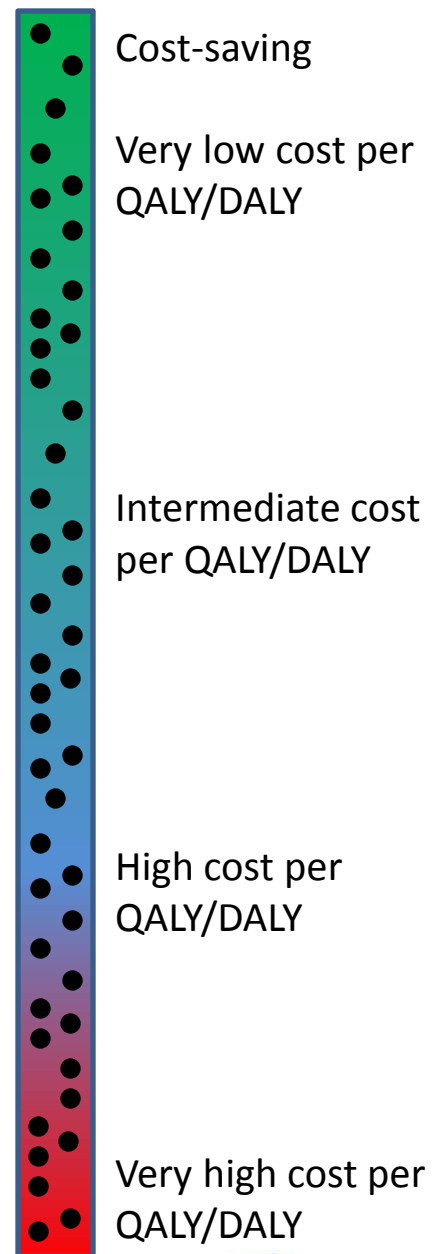
HTA of individual technologies is not a substitute for the reform of the health care systems

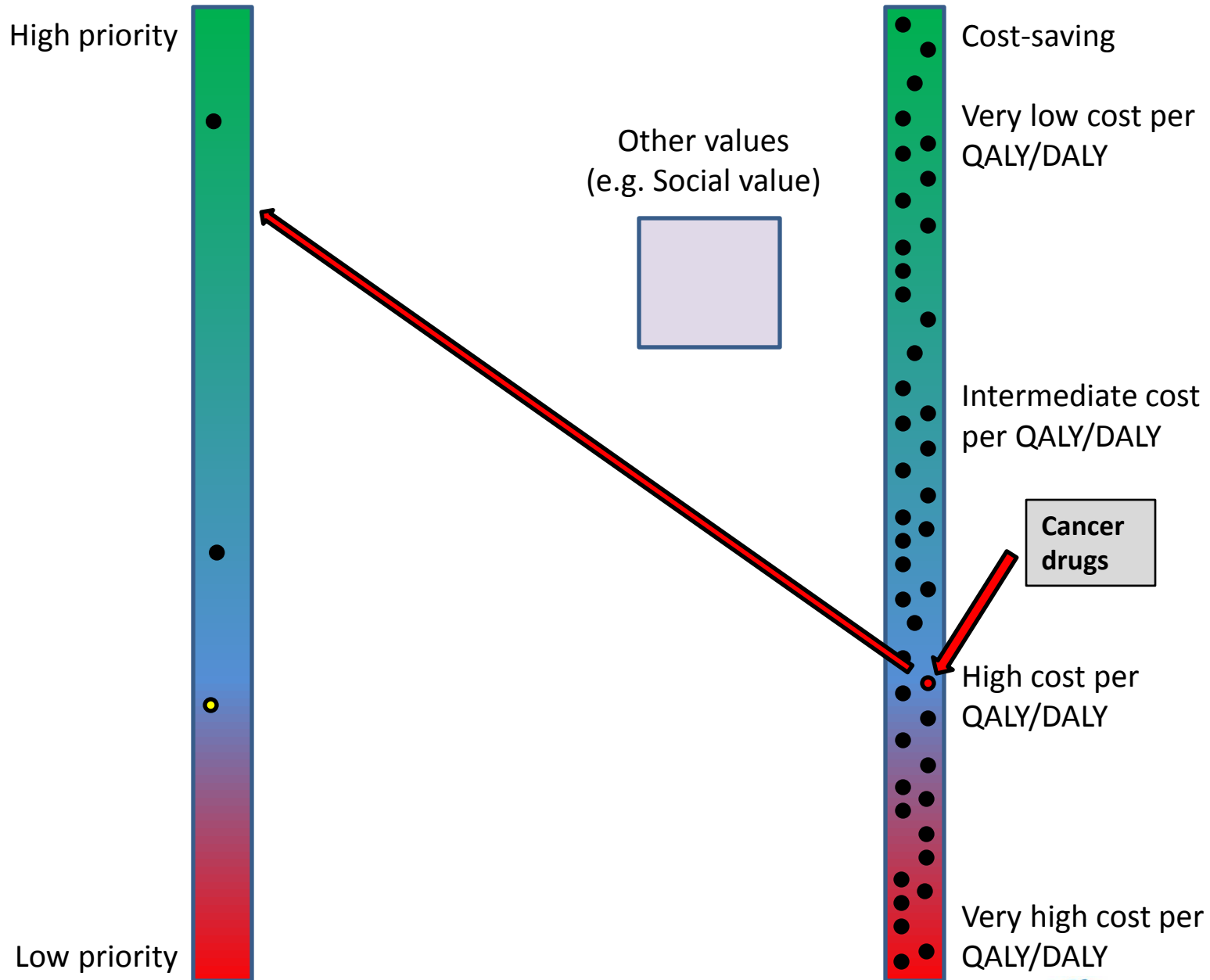
1. Analyze the CE of various interventions along health problems (e.g. cancer)
2. Focus the analysis on the best and worst.
3. To produce more information in the region about the cost-effectiveness of interventions .

It is important not only to analyze the incorporation of new technologies, but also to develop a transparent decision making process and attack the inefficiencies of the health system as a whole.

HTA of individual technologies is not a substitute for the reform of the health care systems.

Find the way in which the HTA science can be applied to help to develop better health care systems as a whole, beyond the individual analysis of health technologies.





High priority



Low priority

Other values
(e.g. Social value)



Cost-saving

Very low cost per
QALY/DALY

Intermediate cost
per QALY/DALY

High cost per
QALY/DALY

Very high cost per
QALY/DALY



CE en Brasil

PBI per cápita Brasil: R\$ 16.000

