

Implementing Strategies to improve use of antimicrobials and contain resistance: *what is done?*

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World Health Organization
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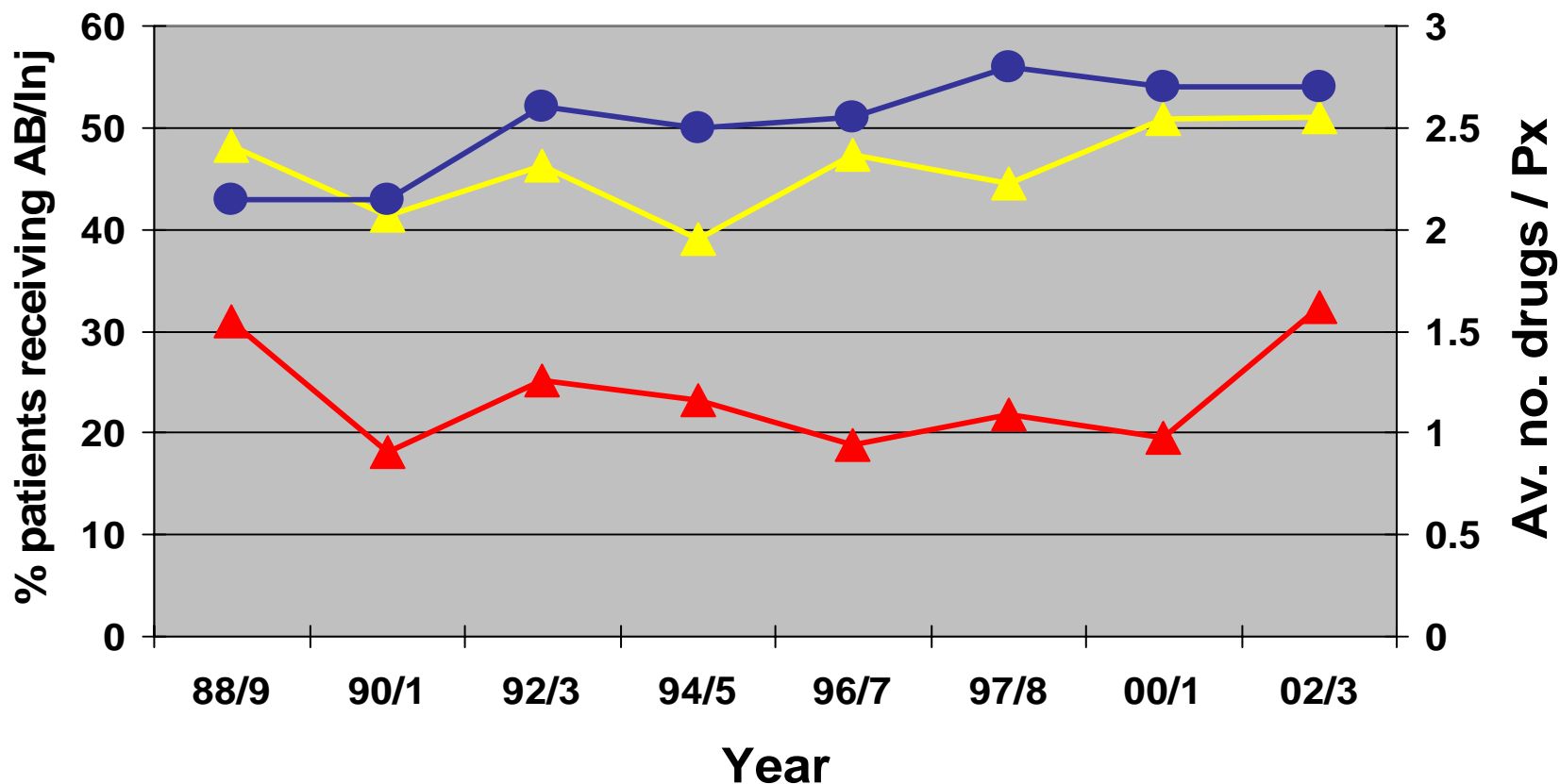
The problem

- **Increasing antimicrobial resistance**
 - up to 70-90% resistance to original 1st line antibiotics for dysentery (shigella), pneumonia (pneumococcal), gonorrhoea, hospital infections (staph. aureus)
 - driven by over-use and inappropriate use of antimicrobials and poor infection control
- **Over-use & incorrect use of antimicrobials**
 - > half all prescriptions inappropriate or incorrect
 - > half all medicines not taken correctly by patients
 - One-third of the world's population does not have regular access to essential medicines



Trends in the use of medicines 1988-2003

Source: WHO/PSM database 2004.



▲ % Px with AB (n=22)
 ▲ % Px with Inj (n=19)
 ● Av. no. drugs/Px (n=24)

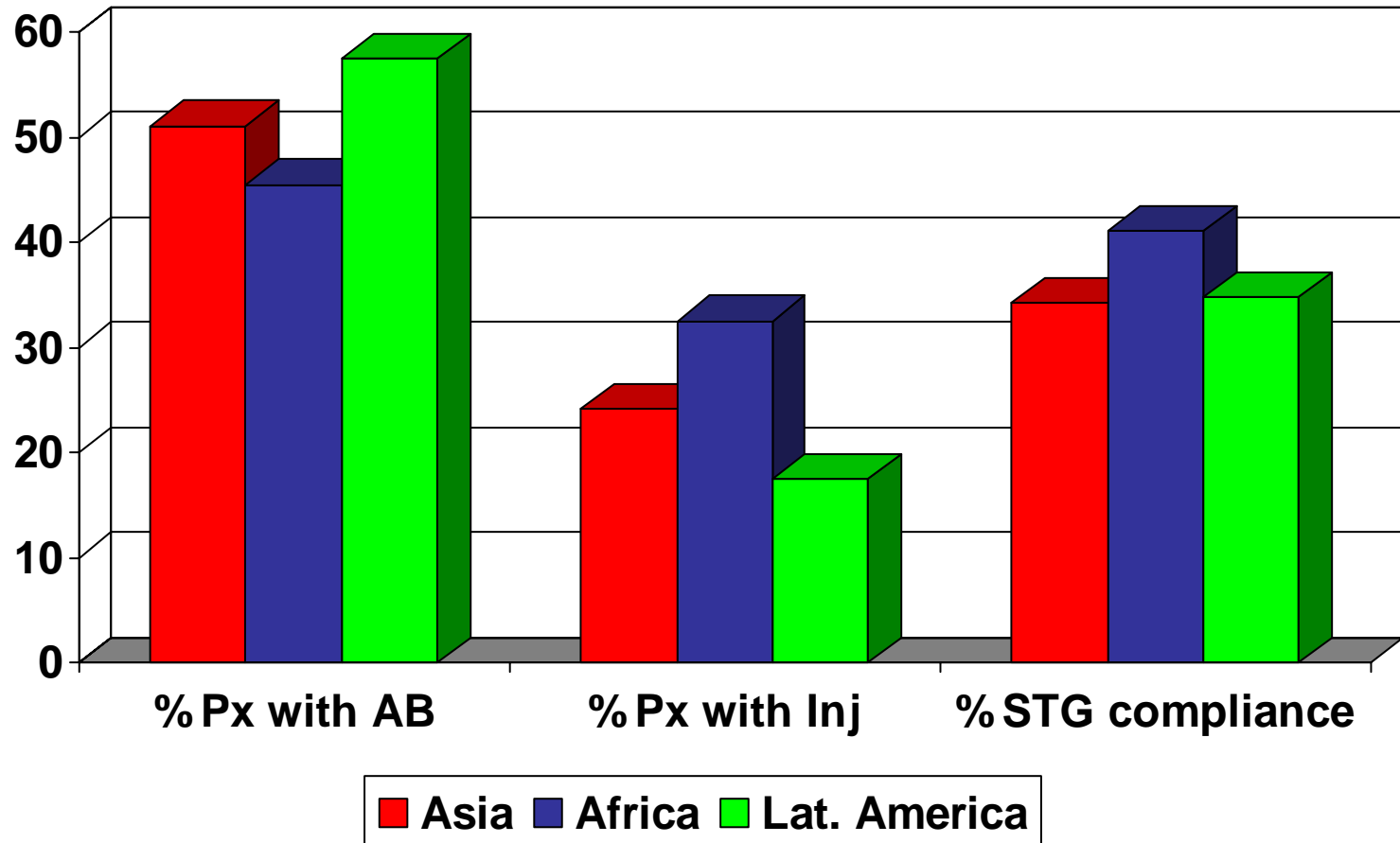
n=average number of studies per year i.e. data point



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Regional variation in prescribing 1990-2004



Source: WHO/PSM database August 2004

Baseline data covering all diseases and all ages

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WHO Global Strategy for Containment of Antimicrobial Resistance

67 interventions in six key areas:

1. Strengthening surveillance capabilities
2. Improving use of antimicrobials (*39 interventions*)
3. Improving access to appropriate antimicrobials
4. Reducing the disease burden and spread of infection
5. Enforcing regulations & legislation
6. Development of appropriate new drugs and vaccines



2nd International Conference for
Improving Use of Medicines,
<http://www.icium.org>
Chiang Mai, Thailand, 2004,
472 participants from 70 countries.

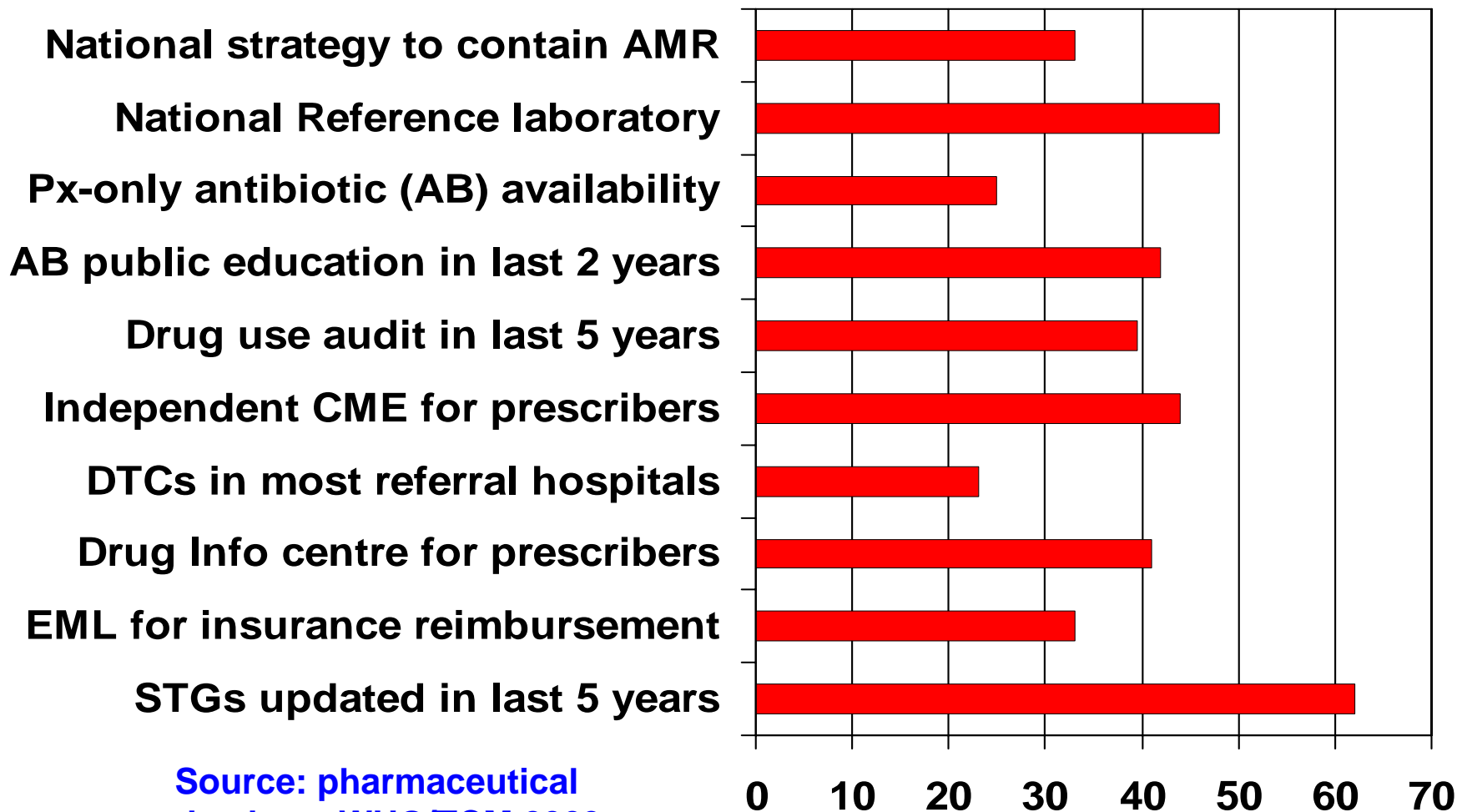


Recommendations for countries to:

- **Implement national medicines programmes to improve medicines use in private and public sectors**
 - long term with in-built monitoring system
- **Scale up successful interventions**
 - coordinated multi-faceted rather than single interventions
- **Implement interventions to address community drug use**
 - school programs & regulation of pharmaceutical promotion



% countries implementing national policies to promote rational use and contain resistance



Source: pharmaceutical database WHO/TCM 2003



What are we spending to promote rational use of medicines ?

- Global sales of Px medicines in 2000: **US\$ 282.5 billion**
- Drug promotion costs in USA in 2000: **US\$ 15.7 billion**
- Global WHO expenditure in 2002-3: **US\$ 2.3 billion**
 - Essential Medicines expenditure **2%**
 - Essential Medicines expenditure on promoting rational use of medicines **10%**
 - WHO expenditure on promoting rational use of medicines **0.2%**



Conclusions

- AMR and irrational use of antimicrobial medicines is a very serious global public health problem.
- Much known on how to improve medicines use but we are not doing it - more national policy implementation needed
- Antimicrobial use of medicines could be greatly improved and AMR contained if a fraction of the resources spent on medicines were spent on improving use.
- Getting rational use onto the political agenda?
 - WHO Resolutions on improving AMR containment in 2005 and a health systems approach to rational medicines use in 2006?

