From guidelines to implementation- A bridge too far?

Prof Shaheen Mehtar
UIPC, Div Comm Health, Fac Med& HS, Stellenbosch Uni, Cape Town, SA
Millennium Goal 6: Combat HIV/AIDS

TOTAL: 9.7 MILLION

June 5, 1981

- MMWR, describing cases of a rare lung infection, *Pneumocystis carinii pneumonia* (PCP), in five young, previously healthy, gay men in Los Angeles.
- Two have already died by the time the report is published.
- **This edition of the MMWR marks the first official reporting of what will become known as the AIDS epidemic.**
1981-1996
Epidemiological aspects of HIV/AIDS

Kaposi’s sarcoma - gays in San Francisco

Slim’s Disease or wasting disease in Africa
1996
Time’s Man of the Year

David Ho, MD early champion of drug cocktails
2000

Almost 20 years later!

1998-2000 ARVs introduced in USA

2001-2002- ARVs bought in Africa- only available to 3%!
2008

HIV in gay Afro American soars by 11% compared with 2003

Nobel Prize for HIV
Deaths continue

- UNAIDS calculates that the global spread of AIDS peaked in 1996 at **3.5 million new infections**.
- Deaths peaked in **2004**, at **2.2 million**.
- 2.7 million new HIV infections and 2 million AIDS deaths in **2008**
- More than half of those who need it get no treatment.

A graveyard in South Africa where **250000 die in a single year**!
Number of people receiving antiretroviral therapy in LMI countries, 2002–2011

Policies implemented 30 years later
Estimated HIV prevalence among TB cases, 2011

An explosive situation globally

World Health Organization

Collaborative TB/HIV activities, 2011
Today, more than 30 years later:

- There are approximately **34 million people** currently living with HIV and about **30 million people have died** of AIDS-related causes since the beginning of the epidemic.
- **97% of those living with HIV reside in sub-Saharan Africa.**
- Many of the countries hardest hit by HIV also suffer from other infectious diseases, food insecurity, and other serious problems.
- The number of people newly infected with HIV and the number of AIDS-related deaths **have declined**,.
- **The number of people with HIV receiving treatment in resource poor countries has increased from 400,000 in 2003 to 9.7 million in 2012.**
From Policy to Implementation

A bridge too far

- No clear instruction or direction (confusion at the higher level of command, lack of understanding of the situation)
- Too few of them (staff shortages)
- Many obstacles (inadequate facilities, lack of knowledge)
- Not enough resources (well- so what’s new???)
Where do the implementation gaps lie?

• In the policy itself?
  – Lack of evidence both international and local; poorly constructed

• The policy makers with a top-down approach?
  Disregard for
  – Implementers
  – Receivers of the policy outcome

• Implementation requires
  – Access
  – Knowledge
  – Discussion and agreement
  – Bottom up approach
  – Trust and confidence in the policy
True or False?

Evidence based research is necessary for effective health policy.
About Evidence Based research

• Evidence based policy is desirable to optimise benefit, reduce negative outcome and to use scarce resources effectively.

• Gaps in evidence require further research

• The research required might differ between various situations- (HIV epidemic in USA & Africa)

• Equally challenging is the implementation that has proven difficult- multiple factors
Questions

• Is one country or region’s evidence applicable to another?
• Does all evidence hold universal truth?
• What does this truth depend on?
• What influences these truths?
• How does one cross this bridge of evidence?
Tackling health inequalities in LMI countries- Evidence applied

1. Clear definition of intended policy outcome and focus of intervention- not always clear
2. There is little evidence based information because EBM is based on systematic reviews of controlled interventions- this approach does not always fit IPC
3. Social & economical determinants of health differ in LMI countries- operational or action research required

Haines A et al; Bull WHO Int 2004; 82: 724-732
LMI countries- why?

- Policies are ignored or not understood
  - Based on someone else’s evidence
- Practice not evidence based – shrouded in ignorance, ritual and prejudice
- Waste of the little available resources- e.g using disinfectants to clean walls
- Use of unnecessary procedures- injections, urinary catheters, LSCS
- Harm to patient and wasted resources
Further.... in LMI countries

- Currently a lack of good research and evidence but improving
- Need confidence to publish their own findings
- Lack of access to research evidence- inadequate internet access
- Lack of robust education, training and career paths in IPC
- Weak health system- donor dependence
- Lack of professional regulations for IPC structures
- Low opportunities for CPD especially IPC
Action (operational) research - appropriate for LMI countries

• Can be used to generate different types of research to gather evidence especially for IPC
  – When no evidence exists
  – When there is poor knowledge, skills and attitudes
  – Gaps in service provision
  – New roles being developed and evaluated and there is a need to work across traditionally conflicting boundaries.

Meyer et al. 2001
The gap in the IPC workforce

In most LMI countries IPC structures are tenuous and often fragile.

In South Africa there are

– IPC CPCs in place
– There is a national policy on IPC
– There are training and teaching programmes
  • From Basic to Master’s level from some universities
– But what does not exist is
  • Recognition from SA Nursing Council or equivalent HPCSA
  • Structure placement - where do CPCs fall? Under nursing or QA?
Workforce required to meet MDG 6.

- *World health report 2006* - minimum worker density threshold of 2.3 workers (doctors, nurses and midwives) per 1000 population to achieve MDG 6.

- WHO estimates a shortage of 2.4 million doctors, nurses and midwives worldwide,

- The cost of training to meet the shortfall by 2015 is around **USD 92 billion**,

- A minimum of USD 39 billion per year for salaries

Tackling health inequalities: turning policy into practice?

• To implement effectively is a key concern and poses a significant challenge
  – The complexity and breadth of the health inequalities agenda, at both national and local levels exist.
  – Need a shift from hierarchical and command-and-control modes of operating to more lateral network models
• An optimal balance between the top-down approach and bottom-up translation is required.
• This is not solely a management process – politics and power are fundamental
• Power imbalances and powerlessness must be addressed if the needs of the most deprived communities are to be given due attention—such as women empowerment.

David J. Hunter and Amanda Killoran Health Development Agency 2004
Some useful tools for policy making

- **Chile** - health technology assessment programme
- **Thailand** - evidence based hospital accreditation
- **South Africa** - systematic review - evidence
- **Philippines** - evidence based guidelines (no data from own so based on Western guidelines)

- Impact studies are few and far between
  - Impact of educational outreach visits
  - Impact of wireless technology in Tanzania

- **ICAN** has influenced national policy in several SSA countries, via education
Barriers to change

• **Practice environment**
  - Limited time
  - Poor organisational structures - lack of record keeping

• **Educational gaps**
  - Failure of curriculum to reflect research evidence
  - Failure to link up with other programmes to provide quality of care
  - Lack of incentives to participants to gain education
  - Commercial interests may bias educational activities

WHO Bull, 2004; 82
Q. What do these people have in common?

DOCTORS WORKING WITH HIV/AIDS...
AIDS SCIENTISTS...
THE MEDICINES CONTROL COUNCIL'S AIDS EXPERTS...
THE NATIONAL AIDS CONSORTIUM, REPRESENTING 230 NGO's...

A. They're all excluded from the government's brilliant new National AIDS Council.
Zapiro on introduction of ARVs to South Africa
Alternatives to ARVs- Manto

All these vegetables prevent the rollout of antiretrovirals — true or false?

African Potato
Beetroot
Lemon
Garlic
Manto

False: Lemon is not a vegetable.
Circulation of guidelines without support

• Circulating guidelines alone have little or no impact on clinical practice

• Traditional educational approach of didactic lectures or conferences have low impact
  – Discussion with workers and patients required

• Lack of accountability does not encourage implementation of guidelines

• Measuring the output- essential to evaluate policy
Barriers to change

• **Social environment**
  – Influence of media to create social demands/ beliefs (vaccination programmes)
  – Social trends- relationship with women
  – Lack of access to healthcare delivery, literacy and information

• **Political environment**
  – Ideological beliefs differ from evidence
  – Political corruption
  – Short term thinking may dominate

WHO Bull, 2004; 82
Barrier to change

• The practitioner
  – Obsolete knowledge
  – Influence of opinion leaders-goes against evidence
  – Behaviour and attitudes-reflecting previous adverse experience
  – Note: traditional healers

• Patients
  – Demand for ineffective or harmful care (injections)
  – Demand for antimicrobial agents
  – Perception of culture and belief on healthcare passed down within families

WHO Bull, 2004; 82
### Total contribution of unsafe injections in the GBD 2000-2010

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<td>Inj/per/year</td>
<td>3.4</td>
<td>2.88</td>
<td>-15%</td>
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<tr>
<td>Reuse rate</td>
<td>39.8%</td>
<td>5.5%</td>
<td>-86%</td>
</tr>
<tr>
<td>HIV</td>
<td>266,000</td>
<td>33,468</td>
<td>-87%</td>
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<td></td>
<td>9.1%</td>
<td>1.3%</td>
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<td>48% in SSA</td>
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<tr>
<td>HBV</td>
<td>20.5m</td>
<td>1.7m</td>
<td>-91%</td>
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<td></td>
<td>32%</td>
<td>2.6%</td>
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<tr>
<td>HCV</td>
<td>1.9m</td>
<td>315,000</td>
<td>-83%</td>
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<td>40%</td>
<td>6%</td>
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<td>85% in WPR B,EMR D, SEAR D</td>
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<tr>
<td>Bacteraemia</td>
<td>1.6m</td>
<td>3%</td>
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Courtesy Selma Khamassi- SIGN
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<th>Non compliance</th>
<th>Standards or NPCGs</th>
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<td><strong>37%</strong></td>
<td>The organization reduces the risk of infections associated with medical equipment, devices, and supplies. The organisation identifies risk of acquiring and transmitting infection.</td>
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<tr>
<td><strong>28%</strong></td>
<td>The critical access hospital reduces the risk of infections associated with medical equipment, devices, and supplies.</td>
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<tr>
<td><strong>43%</strong></td>
<td>Home care: Comply with either the current (CDC) or WHO hand hygiene guidelines.</td>
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<tr>
<td><strong>47%</strong></td>
<td>The hospital reduces the risk of infections associated with medical equipment, devices, and supplies.</td>
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<tr>
<td><strong>46%</strong></td>
<td>The hospital manages risks associated with its utility systems.</td>
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Financial barriers

- Lack of funds to buy drugs or implementation tools
- If too sophisticated or high tech, will face more obstacles when implementing a policy
- Availability of simple “tools of the trade”.
- Need to build budgets

Scavenging syringes and needles for reprocessing and recycling
Implementation- adherence enhancers

• Education-
  – outreach visits influences prescribing and prevention strategies
  – Peer support (female circumcision in North Africa)
  – Reminders- posters and announcements
• Support in setting up new programmes
• Tools to implement policies
  – Financial
  – Staffing
  – Equipment
  – Evaluation
• A strong structure for work force to depend upon
• Interactive media
• Public engagement
Involving the community

Fig. 1. **The path from evidence generation to clinical application** (30). A similar pathway can be applied to public health interventions, but in that case the circumstances, wishes and beliefs of the community are important in determining the application of the evidence. (Reproduced with the permission of BMJ)
Which strategy- single or multi-modal?

• Depends upon actual or perceived risk or benefit to patient and staff

• Multi modal strategies
  • Hand hygiene
  • Injection safety
  • Antibiotic stewardship
  • Bundles

• Single modal strategy
  • Pelvic examination, STIs
  • Surgical practice
Comparing HI and LMI implementation policy

- High income
  - Policy characteristics
  - Policy formation
  - Layers in the policy transfer process
  - The overall characteristics of implementation organs
  - The behaviour of front line staff
  - Impact of responses by those affected by the policy
  - Wider macro-environmental actors

- LMI countries
  - Behaviour of front line staff alone
Weaknesses in LMI policy structure and analysis

1. **Analytical weakness.** The depth of data presented and collected is limited - cannot be used in systematic reviews.
   - Lack of explanatory focus and analysis
   - Limited deep understanding to guide and direct policy analysis, enable explanation
   - Analysis mainly of policy rather than for policy - lack of understanding of implementation strategies

2. As the policy is socially constructed, there is a need discourse analysis to allow further development from a flawed present to an improved future

3. Nature of the research findings and relevance to local conditions (hep C in SA prisons)
Policy makers

- Influenced by research and evidence
- Not all evidence is applicable across HI and LMI countries (SSI)
- Healthcare interventions usually has research with effective interventions in HI countries
- LMI countries further influenced by
  - Cost effectiveness
  - Implementation
  - Cultural appropriateness
  - Impact of health inequality
Driving factors for Policy makers

• Political gain- from constituents
• State vs private sector of health delivery
  – Increase investigation and clinical procedures – some unnecessary in private
• Research to influence policy but sometimes not used if costs involved (CRE no screening due to cost)
• Follow a plan
  – Carrying out research
  – Synthesising (?) formulating policy
  – Implementation of policy
  – Evaluating impact of policy= surveillance
Patients involvement

• Increase information of patients increases uptake of effective interventions but unpredictable
  – Vaccination programmes
  – HIV testing and early ARV therapy

• Cultural impact - must be cognisant

• Educational curricula in schools

• Media-advertising

Driving Forces in Culture

• Poverty
• Labour migration
• Subordinate position of women - disempowerment
And now the good news....

- UNAIDS reports a 52% reduction in new HIV infections among children and a combined 33% reduction among adults and children since 2001.
- World closing in on Millennium Development Goal 6, globally the AIDS epidemic has been halted and reversed—race is on to reach universal access to HIV treatment.
- By the end of 2012, some 9.7 million people in low- and middle-income countries were accessing antiretroviral therapy, an increase of nearly 20% in just one year.
The global AIDS resource gap

- 2012 $18.9 billion for HIV programmes in LMI countries
- Domestic spending on AIDS is now 53%

Source: UNAIDS 2012 estimates.
FIGURE 1.1
New HIV infections among adults in low- and middle-income countries, by region, 2001–2012

LOW- AND MIDDLE-INCOME COUNTRIES

NEW HIV INFECTIONS

HIV Infections
Bounds of uncertainty

SUB-SAHARAN AFRICA

NEW HIV INFECTIONS

ASIA AND THE PACIFIC

NEW HIV INFECTIONS
Conclusion- mission accomplished!

• “They (healthcare workers) are surrounded by a plethora of strategic goals, targets and measures, global, national, provincial and, perhaps, even at district level.

• In the absence of the means to make significant changes to service quality and delivery, such targets can be meaningless rote recitations without meaning or impact.

• Nonetheless, human nature ensures that what is measured is valued, and at the very least the potential for improvement has to be welcomed”.

Candy Day and Andy Gray, South African Health Review 2012/2013