Polypill uptake in India & Universal Health Care Programs

D Prabhakaran FRCP, FNASc
Executive Director, Centre for Chronic Disease Control, New Delhi
Director, CoE-CARRS, Public Health Foundation of India
Adjunct Professor, Emory University
Honorary Professor, London School of Hygiene and Tropical Medicine
I, Prabhakaran Dorairaj DO NOT have a financial interest/arrangement or affiliation with any healthcare related companies that could be perceived as a real or apparent conflict of interest in the context of the subject of this presentation.

The UMPIRE trial (2010- June 2013) a polypill trial was supported by Dr. Reddys Lab and I was one of the main investigators of the study.
Outline

• What are the actual sales and clinical experience of polypill in India?
  – What is the acceptability of Fixed dose combination (FDC) polypill among physicians and patients?
  – What are the barriers to adherence to prescribed CV medicines?
  – What could be the components of an ideal Polypill?
  – What are the reasons for a lack of enthusiasm?

• What are the opportunities for radical scaling in access – e.g. Universal health care programs

• Conclusion
SALES OF CV DRUGS & POLYPILL IN INDIA
Sales growth of the total market for CVD drugs (2009-2012)

<table>
<thead>
<tr>
<th>Growth (%)</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>CVD Drugs</td>
<td>18.72</td>
<td>17.97</td>
<td>19.32</td>
<td>13.56</td>
</tr>
</tbody>
</table>

Source: IMS Health

Note: Sales values based on Dec MATs (Moving Annual Totals)
Actual Sales of FDCs vs. Plain formulations

Source: IMS Health
Note: Sales values based on Dec MATs (Moving Annual Totals)

No. of patients treated with FDCs in 2012: ~80000

Total sales: 500 million INR = 8.3 million USD
Source: IMS Health
Note: Sales values based on Dec MATs (Moving Annual Totals)
Clinical experience of Polypill in India

• Acceptability among patients:
  – In the UMPIRE trial, FDC improved adherence by 33%
  – Convenience & simplification of treatment regimen promoted improved adherence (reductions in number of pills, no. of times a day, & no. of medication packages)

• Acceptability among physicians:
  – Widely accepted as a means to simplify treatment and improve adherence; but
  – Raised concerns about lack of flexibility of dose titration in FDC & need for multiple variants of FDC (different combination of drugs & strength)

• Reasons for lack of enthusiasm:
  – Evidence on hard outcomes is unclear
  – Wrong choice of drugs in FDC?
  – Resistance from regulatory bodies

Partly Unpublished; please do not quote
• **Components of Ideal polypill in $2^0$ prevention:**
  – Metoprolol was favoured over atenolol
  – Atorvastatin was considered more appropriate due to its potency at equivalent dose than Simvastatin

• **Barriers to adherence:**
  – Complex medications regimens
  – Increased number of pills
  – Cost of treatment
  – Losing track of medicines (difficulty in identifying pills for illiterate patients)

*Unpublished; please do not quote*
Summary

Getting a “buy in” of

Medical professionals
• Primary Vs. Secondary prevention
• Risk factor as continuum; any reduction is beneficial
• Autonomy issues - prescription and dose titration

Patients
• Cost, ease of administration/use
• Positioning life style interventions
  - false sense of security?

Economists
  -Complex (patients, pharma, government and insurance cos.)
Opportunities for radical up-scaling

• Universal health care programs
• Government tie up with the drug manufacturers for bulk procurement/pooled procurement of drugs
• Efficient Drug distribution through central government depots to improve access
WHY INVEST IN UNIVERSAL HEALTH CARE FOR CARDIOVASCULAR DISEASES?
Public health spend not yet a high priority. India’s public expenditure on health is among the lowest in the world

<table>
<thead>
<tr>
<th>Country</th>
<th>Public expenditure on health as % of GDP</th>
<th>Per capita public expenditure on health (PPP$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sri Lanka</td>
<td>1.8</td>
<td>87</td>
</tr>
<tr>
<td><strong>India</strong></td>
<td><strong>1.2</strong></td>
<td><strong>43</strong></td>
</tr>
<tr>
<td>Thailand</td>
<td>3.3</td>
<td>261</td>
</tr>
<tr>
<td>China</td>
<td>2.3</td>
<td>155</td>
</tr>
</tbody>
</table>

More funding needed with right investments such as Primary healthcare | Education and training facilities – medical and public health | Availability of essential drugs to all | Expansion of universal health coverage

Need for doubling of public spending on health to at least 2% of GDP by end of 12th Plan

Source: WHO database, 2009
70% of health spend from own pockets on health. Out of pocket (OOP) expenditure amongst highest in the world

Over 60 million people thrown below the poverty line every year due to OOP on health

Over 40% of hospitalised persons had to borrow money or sell assets to pay for their care

28% of rural residents and 20% of urban residents had no funds for health care

Huge social burden on the poor
High Level Expert Group Report on Universal Health Coverage for India
Instituted by the Planning Commission of India

CONSTITUTED IN OCTOBER 2010
REPORT IN NOVEMBER 2011
Towards universal coverage

- **Population**: who is covered?
- **Coverage mechanisms**
  - Reduce cost sharing and fees
  - Extend to non-covered
- **Financial protection**: what do people have to pay out-of-pocket?
- **Services**: which services are covered?
Key Recommendations of HLEG

- **Adopt** UHC As A National commitment - To Be Initiated in 2012 and Fulfilled By 2022
- **Commit** 2.5% of GDP As Public Financing for Health During The 12th Plan and suggest MOHFW prepare a road-map for implementation of the UHC
- **Prioritize** Primary Health Care For Financing And Human Resource Development & Deployment
- **Conduct** A Review of Government Funded Insurance Schemes & Propose A Plan for Their Integration Into The UHC Framework
- **Provide** Essential Drugs Free Of Cost
- **Establish** Credible And Effective Regulatory Systems For Administering UHC (Accreditation; Standards; Financing; Drugs; Information Systems; M&E)
- **Enable** Community Participation By Institutionalising Health Councils & Health Assemblies With Government Support
- **Facilitate** focusing future MOHFW agendas on a) **Gender** -UHC though a gendered lens b) **Urban Health** c) **Social Determinants Of Health** (Health Promotion & Protection Trust), while preparing its implementation plan
Free Essential Medicines

• Ensure availability of free essential medicines by increasing public spending on drug procurement.

• Increase in the public procurement of essential medicines (additional 0.1% GDP will provide essential medicines in public facilities)

• Streamline and centralize the drug procurement system using the Tamil Nadu TNMSC model
What are the Challenges to increase uptake of EM (if polypill was categorized as EM)

- **UHC**: Persistence of inequities: use by rich and influential poor
- **Generics**: Quality/lack of incentives
- **Pooled Procurement**: Conflicts of Interest
Beyond supply: Challenges

- Health System challenges
- Errors of omission and commission
- Physician attitudes
- Inadequate physician knowledge
- Competing systems of care
Human Resource for Health: Shortages Across The Board

• By 2020:
  – 400000 More Doctors Needed
  – 1.6 million More Nurses Needed

• Even Now:
  – 6.4 million More Allied Health Professionals Needed
Innovations

• Health System Options: Task shifting/task sharing/care coordinators/ use of mHealth/Creating Standard guidelines/incentives

• International Initiatives: Global fund/ HIF (healthimpactfund.org) for polypill/The Drugs for Neglected diseases initiative (DNDi)/”Open licensing”

• Others: Establishment of registries/ QIP and feed back loops/Nurse lead polyclinics: www.pathfinders.org

• Primary care physician capacity building initiatives
Conclusions

• Polypill an attractive option

• Can address several health system issues particularly if UHC and pooled procurement are implemented

• Need to recognize several challenges