Redressing Health Disparities with Information

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South Africa
Redressing Health Disparities with Information

- Introduce the South African health system – the setting and the workload for nurses
- Describe the development of the HMIS
- Illustrate the usefulness of the information to redressing inequity
- Community involvement in seeking equity
- Principles of developing an appropriate HMIS
- Examples from other countries
South African Health System

- 270 District Hospitals; 267 Health Centers; 3670 Nurse-run Clinics serving 40 million
- Eastern Cape – 7 million – poorest province
- 92 small hospitals; 55 Health centers; 750 Clinics
- 250 doctors (all in hospitals); 15,000 nurses
- 15 million clinic OPD visits/year
- Routine FP, EPI, STI, TB, Antenatal care
- Diarrhea (cholera), malnutrition, hypertension and obesity, violence and motor accidents and then-
- HIV
ECape Contrasts
Housing
ECape Contrasts
Density of Population
ECape Contrasts
Health Facilities
Information System

• 9 different competing and non-comparable systems – just for “routine stats”!!
• Independent systems for each vertical program: EPI, FP, STIs, TB, Genetics, malaria, environment and more……
• Some 2500 “essential drugs and supplies”
• No forms, no registers, no feedback and no know use of the information
A Divided Province - Inequities within the EC

Population Density & Poverty in the Eastern Cape
MORTALITY RATES IN THE EASTERN CAPE

Deaths per 1,000

Infant Mortality Rate
Under 5 Mortality Rate

A: 35
B: 54
C: 30
D: 81
E: 99

- Infant Mortality Rate
- Under 5 Mortality Rate
Estimated Adult HIV Positive Rate 1999
(15 to 44 age group)
Health Expenditure Per Capita

Region A
Region B
Region C
Region D
Region E

96/97
98/99
EQUITY Project

• Improve management of resources
• Improve Equity
• Measure disparities in order to redress
  – Baseline sample surveys
  – Annual resurvey to see progress
  – Routine information system to enable managers to visualise the problems and to see the effects of their actions
“Minimum Essential Data”

- Workload and staff – under and over 5 years
- Essential services – new and old FP, new and repeat ANC, Complete immunisation, All STIs, TB case load, HIV tests positive
- Patients referred to hospital
- Drugs out of stock – 10 key items only
- Supervision visit received
- All recorded on a single page monthly form
<table>
<thead>
<tr>
<th>NAME OF Service</th>
<th>ec Empilweni CHC</th>
<th>MONTH:</th>
<th>YEAR:</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>First antenatal visit</td>
<td>0000 0000 0000 0000 0000</td>
<td>0000 0000 0000 0000 0000</td>
<td></td>
<td></td>
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<tr>
<td>Oral pill cycle</td>
<td>0000 0000 0000 0000 0000</td>
<td>0000 0000 0000 0000 0000</td>
<td></td>
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<tr>
<td>Nuristerate injection</td>
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<tr>
<td>Depo-provera/Petogen injection</td>
<td>0000 0000 0000 0000 0000</td>
<td>0000 0000 0000 0000 0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IUCD inserted</td>
<td>0000 0000 0000 0000 0000</td>
<td>0000 0000 0000 0000 0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condoms distributed</td>
<td>0000 0000 0000 0000 0000</td>
<td>0000 0000 0000 0000 0000</td>
<td></td>
<td></td>
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<tr>
<td>Case treated as STI - new</td>
<td>0000 0000 0000 0000 0000</td>
<td>0000 0000 0000 0000 0000</td>
<td></td>
<td></td>
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<tr>
<td>Male urethral discharge - new</td>
<td>0000 0000 0000 0000 0000</td>
<td>0000 0000 0000 0000 0000</td>
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<td></td>
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<tr>
<td>STI contact slip issued</td>
<td>0000 0000 0000 0000 0000</td>
<td>0000 0000 0000 0000 0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STI contact treated - new</td>
<td>0000 0000 0000 0000 0000</td>
<td>0000 0000 0000 0000 0000</td>
<td></td>
<td></td>
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<tr>
<td>Violence against woman</td>
<td>0000 0000 0000 0000 0000</td>
<td>0000 0000 0000 0000 0000</td>
<td></td>
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</tr>
<tr>
<td>HIV counseled - male</td>
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<td>0000 0000 0000 0000 0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIV counseled test done - male</td>
<td>0000 0000 0000 0000 0000</td>
<td>0000 0000 0000 0000 0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIV positive test - female</td>
<td>0000 0000 0000 0000 0000</td>
<td>0000 0000 0000 0000 0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIV positive test - male</td>
<td>0000 0000 0000 0000 0000</td>
<td>0000 0000 0000 0000 0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NAME</td>
<td>ADDRESS</td>
<td># LIVING CHILDREN</td>
<td>METHOD</td>
<td>Starting date</td>
</tr>
<tr>
<td>---------------</td>
<td>---------</td>
<td>------------------</td>
<td>--------</td>
<td>---------------</td>
</tr>
<tr>
<td>Theresa Brown</td>
<td></td>
<td>3</td>
<td>IUD</td>
<td>6/00</td>
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<tr>
<td>Jill Hill</td>
<td></td>
<td>1</td>
<td>Depo</td>
<td>01-Sep</td>
</tr>
<tr>
<td>Thembi Mafoka</td>
<td></td>
<td>0</td>
<td>Condom</td>
<td>02-Jan</td>
</tr>
<tr>
<td>Xoliswa Jones</td>
<td></td>
<td>1</td>
<td>pill</td>
<td>02-Feb</td>
</tr>
</tbody>
</table>
Key indicators for Action

• Work load – patients/nurse/day
• Coverage: immunisation, FP,
• Drug stock outs - % that ran out in month
• Disease outbreaks: diarrhea, flu
• Quality of care: standard treatment for STI
• Continuity of care: TB, hypertension
• Severity of cases: referral rates
Immunisation report

• Previously had 40 plus data items
• Now, % of infants fully immunised this month
• Possible problems:
  – Vaccine stock out
  – Refrigerator not working
  – Nursing absence
  – Lack of community motivation
  – No outreach services
• Call, or go find out how to help!
Immunisation % by clinic - MBASHE

Fully immunised under age one - 2001
NEWLANDS CLINIC
WOMEN YEAR PROTECTION RATE, JULY-DEC 2000

TARGET LINE

PERCENTAGE

MONTHLY COV. | SUM. COV.
---------|---------
JULY 2000  | 5       | 5
AUG 2000   | 3       | 8
SEP 2000   | 4       | 12
OCT 2000   | 5       | 17
NOV 2000   | 3       | 20
DEC 2000   | 3       | 23
<table>
<thead>
<tr>
<th>Data type</th>
<th>Monthly TB Data Fields</th>
<th>Data Source</th>
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<tbody>
<tr>
<td>Case finding</td>
<td>Suspected TB case</td>
<td>Patient register</td>
</tr>
<tr>
<td></td>
<td>TB case diagnosed - new</td>
<td>Lab register</td>
</tr>
<tr>
<td>Case prevalence</td>
<td>TB patient under treatment</td>
<td>TB register</td>
</tr>
<tr>
<td></td>
<td>MDR patient on outpatient treatment</td>
<td>TB register</td>
</tr>
<tr>
<td></td>
<td>TB patient on DOTS - Facility</td>
<td>TB register</td>
</tr>
<tr>
<td></td>
<td>TB patient on DOTS - Community</td>
<td>TB register</td>
</tr>
<tr>
<td>Sputum Conversion</td>
<td>2/3 month sputum due</td>
<td>Desk Calender</td>
</tr>
<tr>
<td></td>
<td>2/3 month sputum sent</td>
<td>Lab register</td>
</tr>
<tr>
<td></td>
<td>2/3 month sputum positive</td>
<td>Lab register</td>
</tr>
<tr>
<td>Potential Interrupters</td>
<td>TB suspend - new</td>
<td>Suspender Register</td>
</tr>
<tr>
<td></td>
<td>TB suspend - restarted</td>
<td>Suspender Register</td>
</tr>
<tr>
<td>Child contacts</td>
<td>Child under 5 years - TB contact</td>
<td>Blue cards</td>
</tr>
<tr>
<td></td>
<td>Child under 5 years - TB treatment</td>
<td>Blue cards</td>
</tr>
<tr>
<td>Monthly outcomes</td>
<td>Outcome - PTB Cured</td>
<td>Blue cards</td>
</tr>
<tr>
<td></td>
<td>Outcome - PTB Completed</td>
<td>Blue cards</td>
</tr>
<tr>
<td></td>
<td>Outcome - PTB Failure</td>
<td>Blue cards</td>
</tr>
<tr>
<td></td>
<td>Outcome - PTB Interrupted</td>
<td>Blue cards</td>
</tr>
<tr>
<td></td>
<td>Outcome - PTB Died</td>
<td>Blue cards</td>
</tr>
<tr>
<td></td>
<td>Outcome - PTB Transferred out</td>
<td>Blue cards</td>
</tr>
</tbody>
</table>
Interrupted as % Outcomes

Oct-00 | Nov-00 | Dec-00 | Jan-01 | Feb-01 | Mar-01 | Apr-01 | May-01 | Jun-01 | Jul-01 | Aug-01 | Sep-01 | Oct-01 | Nov-01 | Dec-01
---|---|---|---|---|---|---|---|---|---|---|---|---|---|---
| | | | | | | | | | | | | | | |
Locally relevant data items

- Bilharzia cases (school age)
- Malaria (only a few districts in So Africa)
- Rape and HIV response
- Industrial accidents
- New toilets installed in schools
Areas without toilets
Improved Management Decisions

• Personnel Deployment
• Drug ordering to avoid stock-outs
• Better Supervision – more supportive
• Reallocated finances
Facility level Indicators

Availability of 10 Key Indicator Drugs

% clinics

- 1997: 21
- 1998: 25
- 1999: 24
- 2000: 40
- 2002: 84
Improving Supervision activities

- Review PHC Reports: 67, 72, 73
- CHC Drug stock cards: 55, 65, 87
- Train staff: 14, 45, 57
- Observe consultations: 45, 57, 64

Health Expenditure Per Capita
The EQUITY Index - 1997 to 2002

Year | Percent
--- | ---
1997 | 52.2
1998 | 53
1999 | 57.8
2000 | 58.7
2002 | 61.3
Principles for EQUITY

• Start small, limit the requests for data
• One page rule: reports fit on ONE PAGE
• Paper based – do it by hand till all understand where the numbers come from
• Users identify priorities for info they need
Principles for EQUITY

• Data collected only if it makes an indicator
• Action linked to each indicator (up or down inspires some action)
• Indicators are exactly that – they INDICATE what needs attention, not what to do
• Indicators MUST be interpreted to make information which is used for ACTION to give results that can be measured
• Managers act on low performers – figure out why and redress the needs –ACT!
Principles for EQUITY

• Chose only data period likely to show a change: monthly, quarterly, annually – collect and report only as often as needed to see a change

• Feedback and action is the strategy for sustainability
Principles for EQUITY

• One-page rule of data forms
• Tick registers and tally sheets simple and easy to use and sum at end of month
• Registers for continuity – the real measure of quality is continuity of care
• Let computers come later and with a flexible program that can accommodate local variations as well as do the donkey work of statistics
Principles for EQUITY

• Don’t let the higher authorities dictate the routine system – force their info requests to clearly define their needs - where these legitimately exceed the routine report, make a part of annual or biannual surveys or audits. Don’t overwhelm the workers.

• Establish a national clearing house to approve any and all info requests from “higher up”. Let the Committee withstand the pressure from higher up and donors
Information for Equity – examples:

• Community nutrition programs in Indonesia, India, Honduras and Bangladesh – % kids gaining weight – single indicator of progress

• Tanzania nutrition assessment helped focus government efforts to poorest communities

• Bangladesh districts are now ranked annually based on measured progress for children

• Progress of Indian States – ranked states – best practices highlighted and recognised

• Progress of Nations – UNICEF ranked countries on World Summit for Children goals
Fig. 3.17: Measles Immunization Coverage (Children Aged 12-23 Months) in Rural Area of Bangladesh - 2003

Source: MICS 2003, BBS/UNICEF
Conclusions

• Keep it simple! A little accurate and timely information is worth far more than a lot of late and inaccurate figures.

• Donors and experts – PLEASE do NOT overwhelm the system – help strengthen it - accept more limited data and see performance improve and disparity reduced

• Consult with the front line workers and meet their needs

• Redress Disparity to bring results and Equity
Obrigado e Boa Sorte!!!

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