EFFICIENCY IN MANAGING CHRONIC DISEASES: COMPARISON OF FOUR PRESCRIPTION DRUG ASSISTANCE PLANS (PDAPs) IN THE CARIBBEAN

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MISUNDERSTANDING CNCDs

- Problem for rich not poor countries.
- Affects rich people more than poor.
- Affects old rather than young or middle-aged.
- Affects mostly men rather than women.
- Cannot be prevented (you must die of something).
- Some with CNCDs live to 90’s so no cause for alarm.

CNCDS: IMPACT ON ECONOMIES, HEALTH SYSTEMS AND HOUSEHOLDS

Key Drivers

Economies

- Reduced labor supply
- Less labor outputs (re: absentees)
- Additional costs to employers (e.g. productivity, insurance)
- Lower returns on human capital investments and tax revenues
- Increased public health and social welfare expenditures

Health Systems

- More NCD healthcare needed
- High medical treatment costs (per episode and over time)
- Demand for more effective treatments - technology
- Health system adaptation costs (re: organization, service delivery, financing)

Households and Individuals

- Reduced well-being
- Increased disabilities
- Premature deaths
- Household income/assets decrease or impoverishment with catastrophic spending
- Reduced opportunities

Example Impact Areas

- Country Productivity and Competitiveness
- Fiscal Pressures
- Health Outcomes
- Poverty, Inequity and Opportunity Loss

Source: World Bank Analysis by the Authors in "Chronic Emergency: Why NCDs Matter." *Health, Nutrition, and Population Discussion Paper.* 2011. Washington DC: World Bank.

WHY ARE WE HERE? THE MAGNITUDE OF THE PROBLEM

- In 2010 NCDs were responsible for 3 out of 4 deaths (75%) in the Caribbean
- The 4 major NCDs ranked among the leading causes of death

Source: Regional Mortality Information System, Pan American Health Organization.

Pan American Health Organization

World Health Organization Americas

CHRONIC DISEASES: THE ECONOMIC BURDEN

1. **Barcelo et al (2003**) on diabetes in the Bahamas, Barbados, Guyana, Jamaica and Trinidad and Tobago:

a) Total Direct (treatment) and Indirect (foregone earnings) Costs:- US$1 billion or 3% of GDP.

b) Per capita direct cost was US$687 or more than twice total health spending per capita (US$302).

2. **Abdulkadri et al (2009**) on diabetes and hypertension in the Bahamas, Barbados, Jamaica, T'dad & T'bgo:

a) Total Direct & Indirect Costs:- US$1.4 bn or 5.2% GDP.

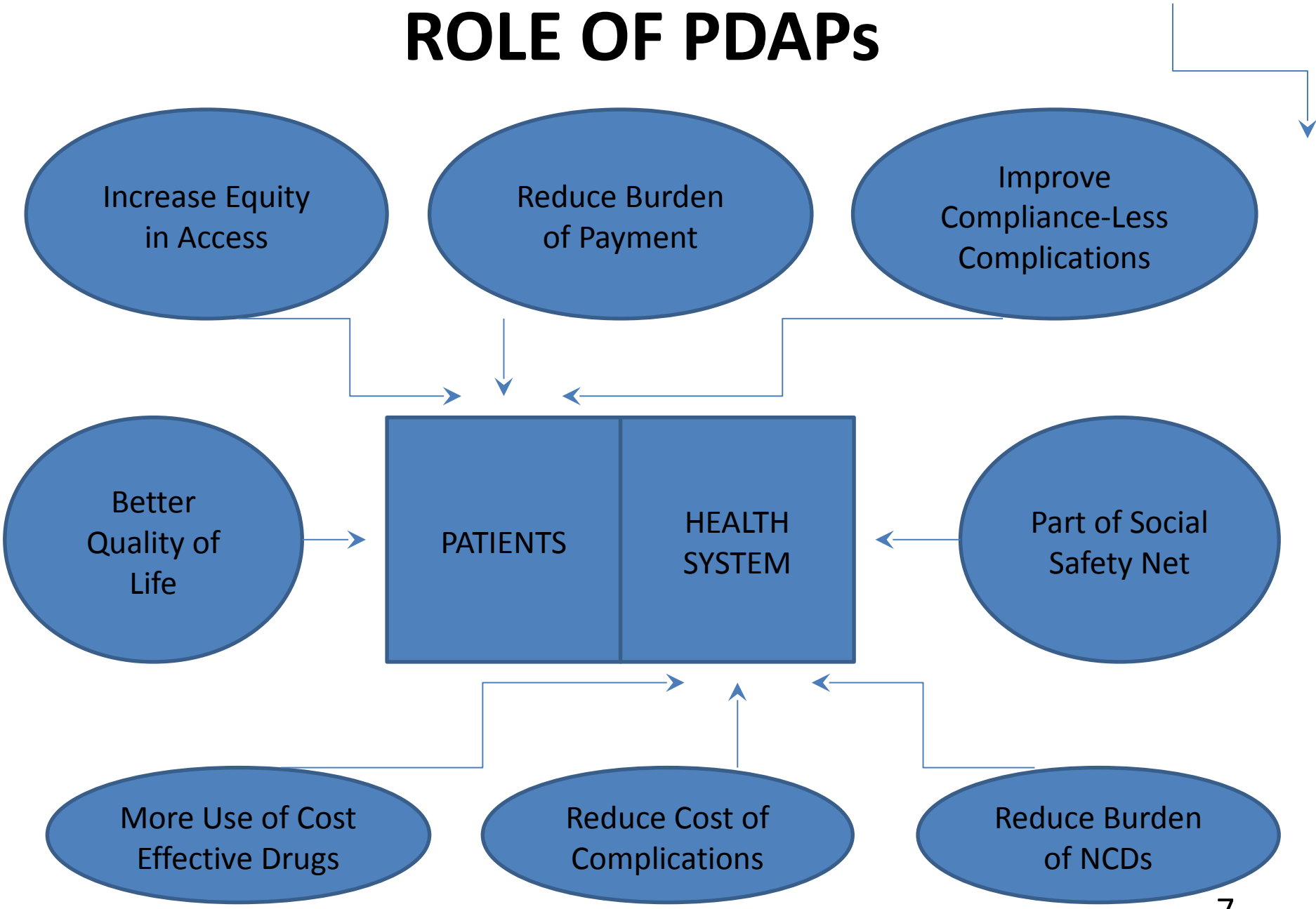
b) Total costs of each condition approximately US$0.7 million or 2.6% of GDP.

ECONOMIC COST OF DIABETES AND HYPERTENSION (US$ millions)

	BAHAMAS	BARBADOS	JAMAICA	TRINIDAD AND TOBAGO
DIABETES	**27**	**38**	**221**	**467**
HYPERTENSION	**46**	**73**	**266**	**250**
TOTAL	**73**	**111**	**487**	**717**
% OF GDP	***1.4***	***5.3***	***5.8***	***8.0***

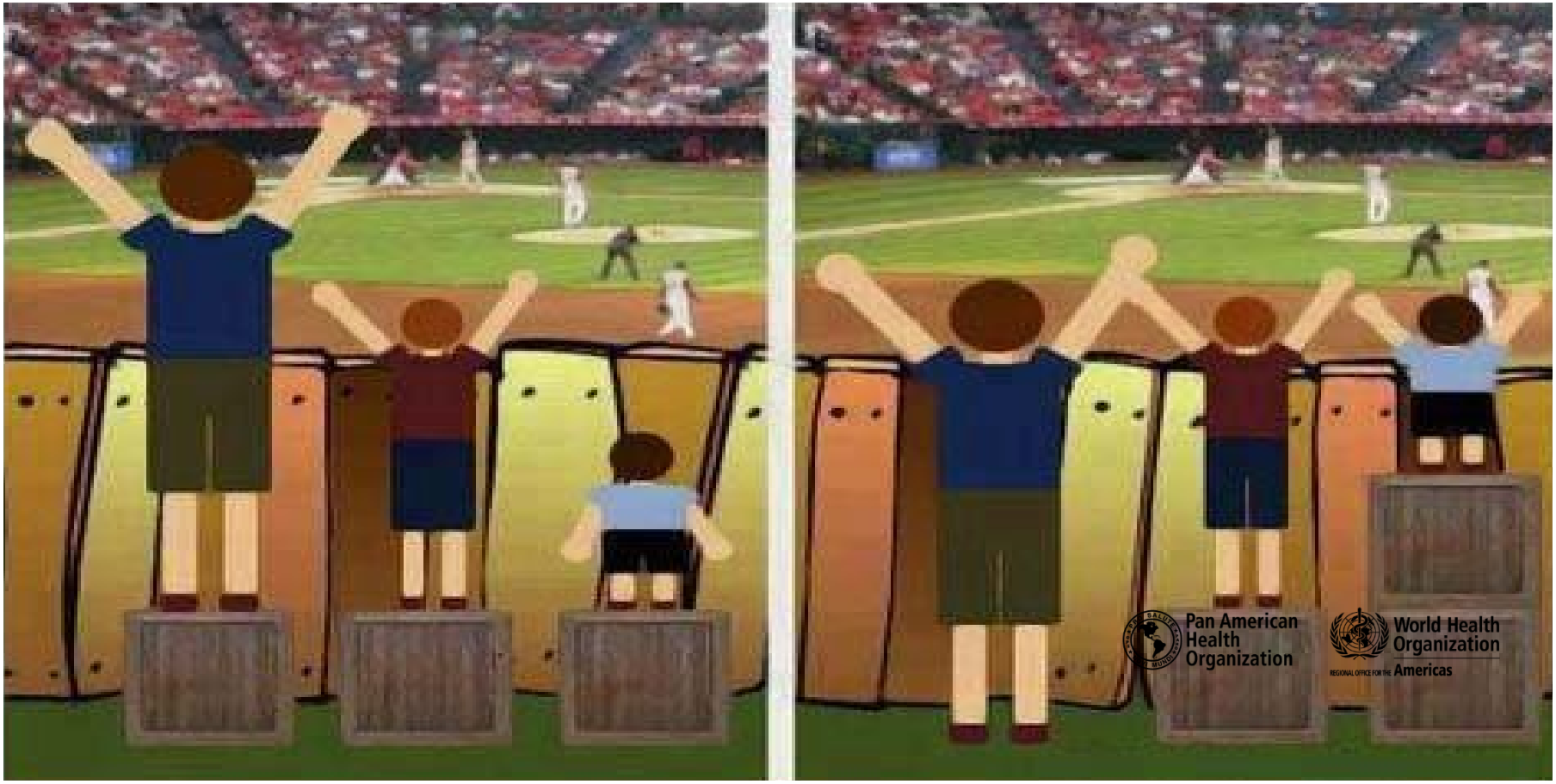
Source: Abdulkadri et al (2009).

ROLE OF PDAPs



EQUALITY VS. EQUITY: THE ABSENCE OF UNFAIR AVOIDABLE DIFFERENCES IN HEALTH STATUS, ACCESS TO HEALTH SERVICES AND PAYMENT FOR SERVICES

EQUALITY EQUITY



PDAPs: KEY DESIGN FEATURES

FEATURES	BARBADOS DRUG SERVICE (BDS)	JAMAICA NATIONAL HEALTH FUND (NHF)	T&T CHRONIC DISEASES ASSISTANCE PROGRAM (CDAP)	BAHAMAS NATIONAL DRUG PLAN (NDP)
Start-Up	**1980**	**2003**	**2003**	**2010**
Legislated	**Yes**	**Yes**	**No**	**Yes**
Administration	**Part of MOH**	**New Statutory Body (NHF)**	**Joint MOH-NIB**	**Part of NIB**
Diseases Covered	**5+**	**16**	**11**	**14**
Eligibility	**National ID Cardholders with Listed Diseases**	**Registered Residents with Listed Disease**	**National ID Cardholders with Listed Prescription Drugs**	**Registered NIB Cardholders with Listed Diseases**

CHRONIC DISEASES COVERED

BARBADOS	JAMAICA	TRINIDAD AND TOBAGO	BAHAMAS
Asthma	Arthritis	Arthritis	Arthritis
Cancers	Asthma	Asthma	Asthma
Diabetes	Benign Prostatic Hyperplasia (BPH)	Benign Pros. Hyp. (BPH)	Breast Cancer
Epilepsy	Breast Cancer	Cardiac Disease	Benign Pros. Hyp. (BPH)
Hypertension	Major Depression	Depression	Diabetes
	Diabetes	Diabetes	Glaucoma
	Epilepsy	Epilepsy	High Cholesterol
	Glaucoma	Glaucoma	Hypertension
	High Cholesterol	High Cholesterol	Ischaemic Heart Disease
	Hypertension	Hypertension	Prostate Cancer
	Ischaemic Heart Disease	Parkinson's Disease	Psychiatric Illnesses
	Prostate Cancer	(Thyroid Disease)	Sickle Cell Anaemia
	Psychosis	(Acid Reflux)	Thyroid Conditions

EFFICIENCY CRITERIA USED IN COMPARISON

CRITERIA	COMPARISON FEATURES	
1. Source of Funds	Diversified (1)	Sole Source (2)
2. Sourcing of Drugs	Public Tender (1)	Open Market (2)
3. Drug Formulary	Defined (1)	Open-Ended (2)
4. Prescribing Protocols	Defined per Period (1)	Open-Ended Supplies (2)
5. Network of Pharmacies	Contracted (1)	Any Willing Provider (2)
6. Claims Processing	Online/Real-Time (1)	Manual (2)
7. Co-Pays	Rules-Based…some (1)	None (2)
8. Timely Reimbursement	Weekly (1)	Longer than One Week (2)
9. Health Promotion	Included in Plan (1)	Excluded from Plan (2)
10. Overall Cost Control	Managed (1)	Limited (2)

AVERAGE EFFICIENCY SCORES (1 IS HIGHEST)

CRITERIA	BARBADOS (BDS)	JAMAICA (NHF)	T&T (CDAP)	BAHAMAS (NDP)
1. Source of Funds	Single (2)	Diverse (1)	Single (2)	Single (2)
2. Drugs Sourcing	Tender (1)	Market (2)	Tender (1)	Tender (1)
3. Drug Formulary	Defined (1)	Defined (1)	Defined (1)	Defined (1)
4. Protocols	Open (2)	Defined (1)	Open (2)	Defined (1)
5. Network	Contracted (1)	Contracted (1)	Contracted (1)	Contracted (1)
6. Claims Processing	Manual (2)	Online (1)	Manual (2)	Online (1)
7. Co-Pays	Some* (1)	Some * (1)	None (2)	None (2)
8. Reimbursement	Monthly + (2)	Weekly (1)	Monthly + (2)	Weekly (1)
9. Health Promotion	Excluded (2)	Included (1)	Excluded (2)	Included (1)
10. Overall Cost Control	Limited (2)	Limited (2)	Limited* (2)	Managed (1)
AVERAGE	1.6	1.2	1.7	1.2

PAYMENT TERMS IN BARBADOS (selected co-pays)

ACQUISITION COST OF DRUG ($)	MID-POINT COST OF DRUG ($)	REIMBURSEMENT FORMULA	MIDPOINT MARGIN (%)
0.01—2.00	1.00	$5.00	400
2.01—10.00	6.00	Cost plus $5.00	85
10.01—20.00	15.00	Cost plus $7.00	47
20.01—40.00	30.00	Cost plus $12.00	40
Over 40.00	60.00	Cost plus 30%	30

PAYMENT TERMS IN JAMAICA

- Reference drug pricing based on best available price of bio-equivalent drug in marketplace.

- NHF pays up to 95% of reference price.

- Choice of drug by member-doctor leads to co-pay i.e. difference between NHF payment and price charged by pharmacy.

PAYMENT TERMS IN T&T

- Tender and procurement of drugs and distribution to pharmacies (based on replenishment requests) handled by NIPDEC.

- Single fixed payment of TT$10 (US$1.60) to pharmacies as dispensing/administrative fee per drug filled from consigned stock.

- No co-payments.

PAYMENT TERMS IN THE BAHAMAS (no co-pays)

ACQUISITION COST OF DRUG ($)	MEAN COST ($)	MARK-UP (%)	DISPENSING FEE ($)	MEAN MARGIN (%)
0.01—5.00	2.52	45	3.00	164
5.01—25.00	13.57	35	3.00	57
Over 25.00	54.94	30	3.00	35
OVERALL MARGIN (%)				47

KEY FINDINGS/OBSERVATIONS

- Improved equity in access & less burden of payment **BUT** direct cost sharing is inequitable.
- Increased demand for/utilisation of medications

  BUT compliance monitoring is weak.
- Legislated plans in place (excluding T&T)

  BUT single sourcing of funds is problematic.
- Overall cost control is reasonable **BUT** auditing of prescribing/dispensing is inadequate.
- Complementary health promotion-education programs are absent or de-emphasised.

EMERGING BEST PRACTICES/SUCCESS FACTORS

- ‘End to end’ **cost control** i.e. defined membership, formulary, prescribing protocols, procurement by tender, reimbursement formula.
- Electronic **data systems** from membership to drug tender/procurement to claims payments to audits of prescribing/dispensing/utilisation behaviour.
- Varied **sources of funding** including equitable cost-sharing arrangements.
- Earmarked funds for results-based health promotion-education components.
- More **research** on :
  - Compliance behaviour;
  - Impact on complications and rest of health system;
  - Savings to patients/families, employers and to private insurers and
  - Impact on use of more cost-effective medications.

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