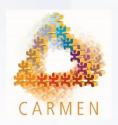
Integrated Management of NCDs: Transforming health systems to improve outcomes

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Outline

- NCD management goals
- Why an integrated approach?
- The example of the Chronic Care Model
- Practical implementation with a package of essential NCD interventions (PEN)





NCD Management Goals



By 2016, strengthen health systems to address NCDs through peoplecentered primary health care and universal health coverage



OBJECTIVE 3: Improve coverage, access and quality of care for NCD management

- Improve quality of care (eg. Chronic Care Model)
- Increase access to essential medicines and technologies
- Implement effective **interventions** for NCD screening, treatment and control



Global NCD Targets:

- 80% coverage of essential medicines and basic technologies
- 50% of people at high cardiovascular risk receive appropriate drug therapy and counselling to prevent heart attacks and stroke

Pan American

Best Buy Interventions for NCD Management

Cardiovascular diseases and diabetes

- Drug therapy for hypertension control and diabetes control
- Total risk approach and counselling for those who have had a heart attack or stroke and those with high risk of CV event in next 10 years
- Aspirin for acute myocardial infarction

Cancer

- Liver cancer prevention by hepatitis B vaccination
- **Cervical cancer prevention** by vaccination against human papillomavirus of 9–13 year old girls and by screening women aged 30-49 years
- Breast cancer screening with mammography, every 2 years for women aged 50-69 years
- Colorectal cancer treatment with surgery, chemotherapy, radiotherapy
- Palliative care

Chronic Respiratory Diseases

- Asthma symptom relief with inhaled salbutamol
- COPD symptom relief with inhaled salbutamol
- Asthma treatment using low dose inhaled beclometasone and short acting beta agonist

Challenges

- > Weak and underfunded health systems
- > Fragmentation of care and poor referral mechanisms
- Gaps in capacity of care
- Gaps in quality of care
- Patients inadequately informed about managing their illness
- > Poor disease control and outcomes
- > Increasing costs of care





Solution: Transform Health Systems

- Re-orient the health system so it is led by primary care
- Assure long-term care that is proactive, patient-centered, and community-based:
 - o person focus across the lifespan rather than disease focus
 - o continuous care rather than episodic care
 - accessible with no out-of-pocket payments
 - resources according to population needs rather than demand
 - broad range of services including preventive services and self management support
- Deliver better health outcomes, at lower cost





Chronic Care Model

Community

Resources and Policies

Self-Management Support Health Systems
Organization of Health Care

Delivery System Design Decision Support Clinical Information Systems

Infomed, Activated Patient Productive Interactions Prepared,
Proactive
Practice Team

Improved Outcomes





Source: Wagner E et al. 2001

Implementation of the CCM

- 1. Obtain stakeholder support and sustainable financing
- 2. Assess and strengthen the capacities of primary health care for screening, diagnosis, treatment and control
- 3. Develop education, information, and counseling messages
- 4. Establish protocols and algorithms of care
- 5. Create multi-disciplinary health teams
- 6. Train the health workforce
- 7. Improve health information system
- 8. Supply medicines and technologies
- 9. Develop patient self management support strategies
- 10. Implement, evaluate and extend to national level



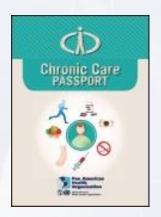


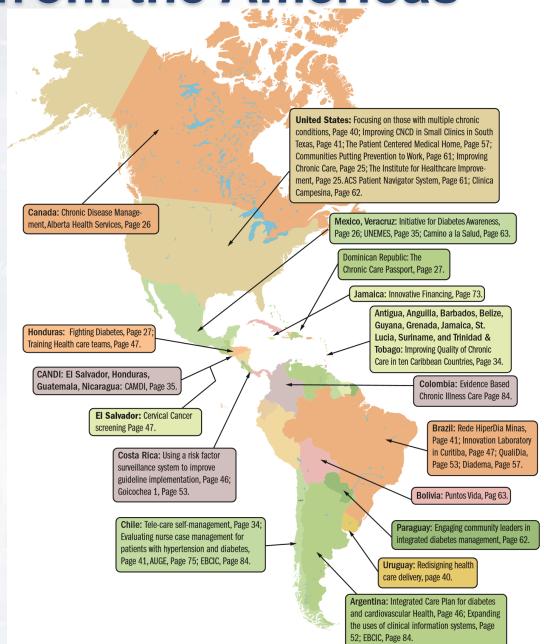
Innovative Care for

Source: PAHO, 2013

Examples from the Americas

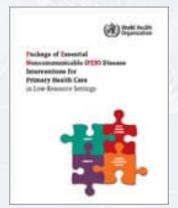






Source: PAHO, 2013

PEN Package of Interventions



- Guidance to assess needs, strengthen health systems, and implement NCD interventions
- Protocols for clinical diagnosis and treatment
- Tools for risk prediction of heart attacks and stroke
- Minimum requirements for essential NCD medicines and technologies
- Standards and indicators to measure progress and impact







Source: WHO, 2010; WHO, 2013

Example of a PEN protocol for CVD and diabetes management

Counsel on diet, physical activity, smoking cessation **Risk < 20%** and avoiding harmful use of alcohol

- If risk < 10% follow up in 12 months
- If risk 10 < 20% follow up every 3 months until targets are met, then 6-9 months thereafter

■ Counsel on diet, physical activity, smoking cessation and avoiding harmful use of alcohol

- Persistent BP ≥ 140/90 mm Hg consider drugs (see below ** Antihypertensive medications)
- Follow-up every 3-6 months

■ Counsel on diet, physical activity, smoking cessation and avoiding harmful use of alcohol

- Persistent BP ≥ 130/80 consider drugs (see below ** Antihypertensive medications)
- Give a statin

Risk > 30%

Important practice points

■ Follow-up every 3 months, if there is no reduction in cardiovascular risk after six months of follow up refer to next level

Consider drug treatment for following categories

- All patients with established DM and cardiovascular disease (coronary heart disease, myocardial infarction, transient ischaemic attacks, cerebrovascular disease or peripheral vascular disease), renal disease. If stable, should continue the treatment already prescribed and be considered as with risk >30%
- People with albuminuria, retinopathy, left ventricular hypertrophy
- All individuals with persistent raised BP≥160/100 mmHg; antihypertensive treatment
- All individuals with total cholesterol at or above 8 mmol/l (320 mg/dl); lifestyle advice and statins

** Antihypertensive medications

- If under 55 years low dose of a thiazide diuretic and/ or angiotensin converting enzyme inhibitor
- If over 55 years calcium channel blocker and/or low dose of a thiazide diuretic
- If intolerant to angiotensin converting enzyme inhibitor or for women in child bearing age consider a beta blocker
- Thiazide diuretics and/or long-acting calcium channel blockers are more appropriate as initial treatment for certain ethnic groups. Medications for compelling indications should be prescribed, regardless of race/ ethnicity
- Test serum creatinine and potassium before prescribing an angiotensin converting enzyme inhibitor

Additional actions for individuals with DM:

- Give an antihypertensive for those with BP ≥ 130/80 mmHg
- Give a statin to all with type 2 DM aged ≥ 40 years
- Give Metformin for type 2 DM if not controlled by diet only (FBS>7mmol/l), and if there is no renal insufficiency, liver disease or hypoxia.
- Titrate metformin to target glucose value
- Give a sulfonylurea to patients who have contraindications to metformin or if metformin does not improve glycaemic control.
- Give advise on foot hygiene, nail cutting, treatment of calluses, appropriate footwear and assess feet at risk of ulcers using simple methods (inspection, pin-prick sensation)
- Angiotensin converting enzyme inhibitors and/or low-dose thiazides are recommended as first-line treatment of hypertension. Beta blockers are not recommended for initial management but can be used if thiazides or angiotensin converting enzyme inhibitors are contraindicated.
- Follow up every 3 months

Source: WHO, 2013

CONCLUSIONS

- > 'Systems thinking' needed to improve chronic illness care.
- Chronic care model is a practical approach to improve patient outcomes.
- > WHO PEN provides implementation guidance.
- ➤ Tools, resources, and technical assistance available from PAHO and WHO.



