Beyond screening
Taking action

Kwong Kum Hoong

Outline

- Why take action?
- How ? Constraints of time, resources and indifferent mindset
- Who to take action?
- Summary

Why take action?

Cardiovascular diseases are highly preventable, yet they continue to rank as the most common cause of death worldwide

Manuel Franco et al – Challenges and Opportunities for Cardiovascular Disease Prevention. AJM 2011; 124, 95

PRINCIPAL CAUSES OF DEATH - Singapore	2007	2008	2009
Total No. of Deaths	**17,140**	**17,222**	**17,101**
% of Total Deaths			
1. **Cancer** [ICD9 : 140-208]	27.7	29.3	29.3
2. **Ischaemic Heart Disease [ICD9 : 410-414]**	**19.8**	**20.1**	**19.2**
3. **Pneumonia**[ICD9 : 480-486]	13.9	13.9	15.3
4. **Cerebrovascular Disease (including stroke) [ICD9 : 430-438]**	**8.7**	**8.3**	**8.0**
5. **Accidents, Poisoning & Violence** [ICD9 : E800-E999]	6.0	5.8	5.7
6. **Other Heart Diseases** [ICD9 : 393-398,402,415-429]	4.3	4.0	4.4
7. **Urinary Tract Infections** [ICD9 : 599.0]	2.2	2.1	2.5
8. **Chronic Obstructive Lung Disease** [ICD9 : 490-493, 496]	2.6	2.5	2.4
9. **Nephritis, Nephrotic Syndrome & Nephrosis** [ICD9 : 580-589]	2.0	2.1	2.3
10. **Diabetes Mellitus [ICD9 : 250]**	**3.6**	**2.7**	**1.7**

Why take action?

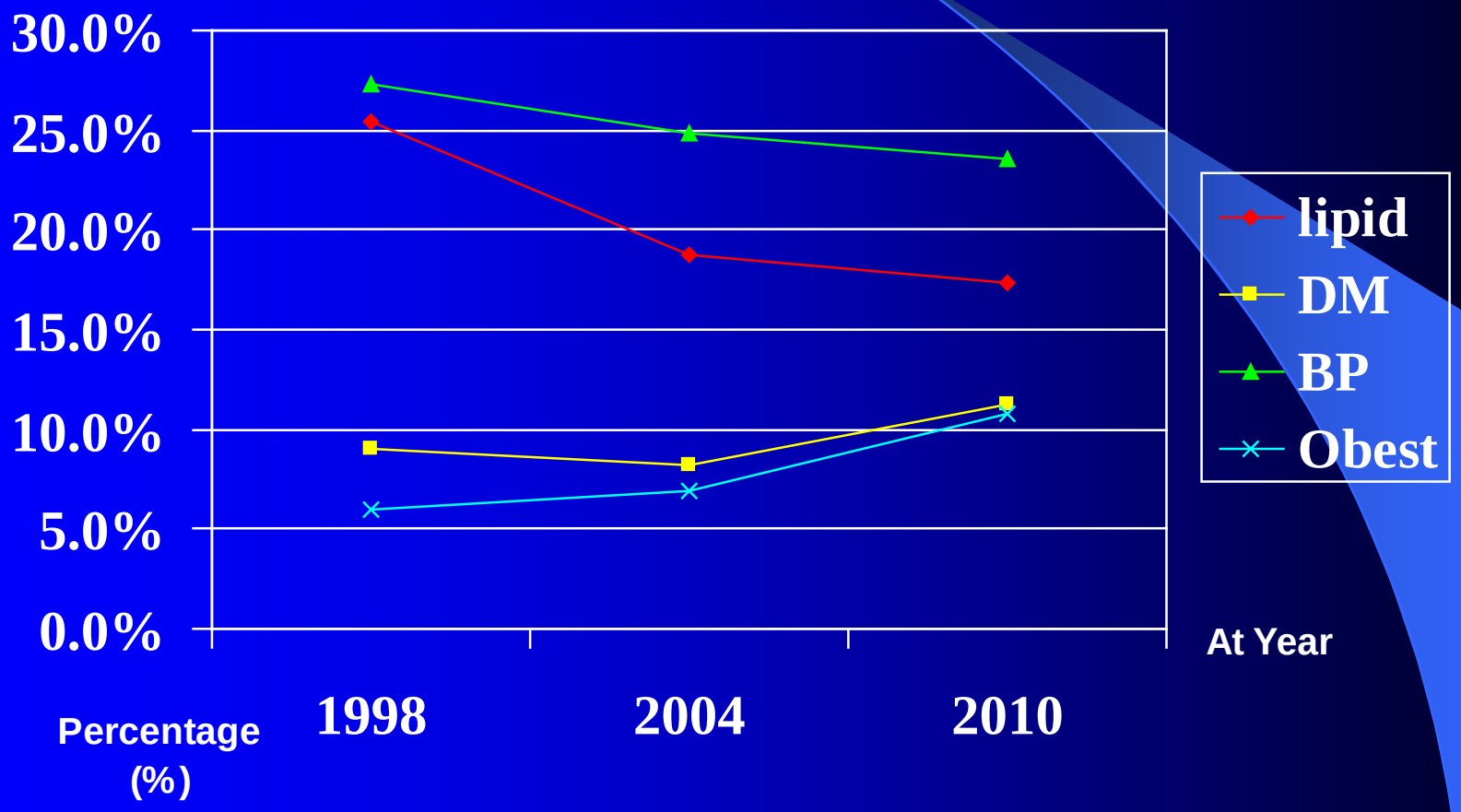
- 1. Undiagnosed & inadequately treated
- 2. Ageing population

	NHS 2004	2010 :
DM 40- 49 yrs	7.9%;	12.1%
60 - 69 yrs	28.7%;	29.1%
BP 40 – 49 yrs	21.6%;	16.7%
60 – 69 yrs	56.1%;	53.4%

By 2030, 27% population > 60 yrs

=> “epidermic” in 20 yrs

Chronic diseases prevalence in the National Health Surveys in Singapore



How?

Chronic care model for Primary care
(Bodenheimer, Wagner's model 2002)

1. Healthcare system
   - Greater involvement of primary care doctors
   - Creation of awareness of CVS in patients as preventable disease
2. Information technology
   - Feedback to physician, eg HbA1c, lipid
   - Reminder system (CPG)
   - Registries for individual care or population base care
3. Clinical practice guideline
   - Computer, CPG summary cards
   - EB clinical practice guideline => optimal chronic care

- 4. System design
  - Leverage on practice team
  - Acute care Vs planned managed chronic condition care
  - BP, Wt/ Ht, BMI, CAD risk chart
  - Personnel to support self care, routine periodic tasks (eg DRP, foot care, blood tests) & visit
- 5. Empower patient & family
  - Education: poster, brochures, public talks, websites
  - Self help (home BP monitoring, glucometer, wt scale)

- 6. Community resources
  - Physical activity programme: I- Run (www.hpb.gov.sg/I-RUN) ;fitness@work; easy fit; soccer 4 health; FaBulouS; community aerobics; brisk walking (http://one.pa.gov.sg)
  - Nutrition education programme: wellness culinary classes (http://one.pa.gov.sg); healthier food trail
  - Smoking cessation programme: quit line 1800 4382000; (www.hpb.gov.sg/quit4life)
  - Nurse educator programme: obesity; manage chronic disease; pre diabetes intervention (hpb_nurse_educator@hpb.gov.sg)
  - Elderly (www.aic.sg/silverpages)
  - Hospital collaboration

Action Framework
(Cheah, 2001)

1. Identify target population
2. Organize a multi disciplinary team
3. Define core components & management protocol
4. Measure outcome & aim for continuous quality improvement

Who to take action?

- Doctor and patient together
- Need to address non adherence to management – Paradigm shift in engaging the patient

1. Empower patient
   - Patient centred approach gives better outcome – next slide
   - Acknowledge that Patient is expert of his/her own life
   - Create long term patient commitment
   - Get Patient more involved => Dr less need for prescription

Patient says	Doctor says	
	Old model	New model
“I hate this exercise plan..”	“Then try walking after dinner every night with your husband for 10 minutes…”	“what do you hate about? What would help you do better at it?”
“I don’t think I can quit smoking…”	“Smoking is the leading cause of preventable death…”	“why do you think that? What has happen in the past when you tried to quit? What concerns you most when you think about trying to quit?…..”

Source: funnel MM 2000

- 2. New consultation style -- Motivational Interview technique to change unmotivated and resistant patients
  - RULE (resist, understand, listen, empower)
  - Collaborative, evocative, honoring patient autonomy
  - OARS (open qn, affirmation, reflective listening, summary)
  - GRACE (gap, roll with resistance, avoid, can do, empathy)
  - 5Rs- relevance, risks, rewards, roadblocks, repetition
  - Agree on problem, negotiate on goals
  - Create options
  - Test patient's knowledge
  - Screen for readiness: importance scale 0 -- 10
    confidence scale 0 -- 10
  - End with intervention for the patient – go and think about it

- 3. Keep patient on course
  - 5 As: Ask; assess; advise; assist; arrange
  - Stages of behavior change (Prochaska): pre contemplation stage; contemplation stage; preparation stage; action stage; maintenance stage
  - Congratulate your patient

- 4. Flow sheets to keep track of things
  - Comprehensive collection of data
  - Make abnormality easy to spot
  - Make it cannot be overlooked: color, heavy weight paper
  - Computerized if possible
  - Filling up the sheet is everyone’s responsibility
  - Review periodically
  - Set goal
  - PDSA (plan, do, study, act process)
  - Be patient

Diabetes Flow Sheet

Name: _____
Date of Birth: _____

HbA1c < 7% (q4-6 months)

Date									
Result									
Date									
Result									

Blood pressure < 130/ 85 mmHg

Date									
Result									
Date									
Result									

Creatinine (annual)

Date									
result									

Urine albumin/ creatinine = 0 – 20 mg/l (annual)

Date									
result									

Lipids mg/dl (annual)

Date									
LDL									
HDL									
TG									
TC									

Retinal examination (DRP) (annual)

date									

Foot screening (annual) High risk: yes/ no

date									

Self management

date									
goal									

( ) diabetes education ( ) dietary counseling ( ) home blood glucose monitoring
( ) DSS membership
CAD status : ( ) past MI ( ) PTCA ( ) current angina ( ) no history
Smoking status: ( ) non smoker (since _____) ( ) smoker (PPD _____)
ACE inhibitor: yes / no Microalbuminura : yes/ no hypertension: yes/ no
Aspirin: yes/ no. If no, reason (s)_____

Modified 2000 Amercian Academy of Family Physicians.

Summary

- 1. CVS diseases remain the most common disease worldwide
- 2. We need to do better
  - National goal needs National effort
  - Chronic care model for Primary care
- 3. Paradigm shift in engaging patient
- 4. Motivational interview technique to deal with unmotivated and resistant patients