

WOMAN HEALTH SERVICE

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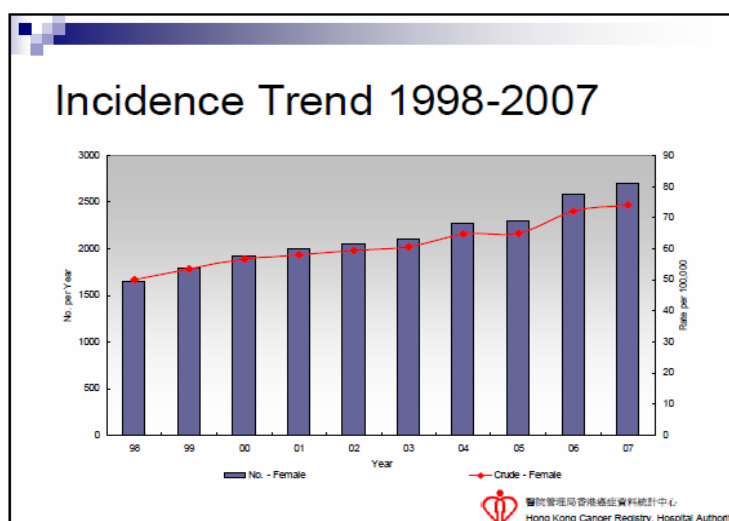
FHKAM(PAED);FRCP(GLASG); FFPH(UK)

BREAST CANCER PREVENTION

Epidemiology of Breast Cancer in HK

- The commonest cancer among women since the early 1990's
 - ▣ Increasing incidence rate even adjusted for age
 - ▣ 2701 new cases diagnosed in 2007
 - ▣ Crude incidence rate = 74.2 per 100,000 (2007)
 - ▣ Age-standardised incidence rate = 52.7 per 100,000 world standard population
- The third leading cause of cancer deaths among women in 2007
 - ▣ 526 women died from this cancer in 2007
 - ▣ Age-standardised mortality rate stable in past 2 decades

Breast Cancer Incidence Trend



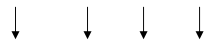
Breast Cancer Mortality Trend



Strategies for Breast Cancer Prevention

Disease Prevention

Environmental Risk factors



Genetic

Disease Onset

Clinical
Presentation

Primary
Prevention

Secondary
Prevention

Primary Prevention

Healthy Lifestyles and Prevention of Diseases in Women

	Breast Cancer	Colon Cancer	Lung Cancer	Cervical Cancer	Cardio-vascular Diseases	Osteoporosis
Physical activity	✓	✓			✓	✓
Balanced diet	✓	✓	✓	✓	✓	✓
Quit smoking			✓	✓	✓	✓
Quit alcohol	✓					✓
Weight control	✓	✓			✓	✓
Safe sex				✓		
Early childbirth	✓					
Breast feeding	✓					✓

Ref: WCRF 2008

(✓ = reduction or prevention in condition)

Secondary Prevention

Cancer Expert Working Group (CEWG) Recommendation on
Breast Cancer Screening for the **General Women Population**

- *Breast self-examination (BSE): not recommended*
- *Clinical breast examination (CBE): Insufficient evidence to recommend*
- *Mammography: insufficient evidence to recommend for or against routine mammography*

Recommendation on Breast Cancer Screening

- *A study on “Cost Effectiveness of Mammography for HK Chinese women” stated that screening mammography may not be cost effective....*

Dr. Gabriel Leung et al 2004

- *A more recent study on “Cost Effectiveness of Mammography for HK Chinese women” suggested that screening mammography for Hong Kong Chinese women may not be cost effective based on the arbitrary threshold of US\$50,000 per QALY.*

Dr. Irene O.L. Wong et al 2007

What is Breast Aware?

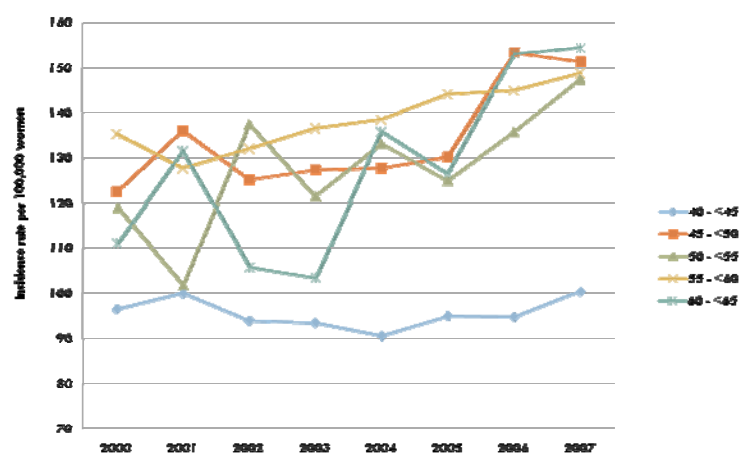
- *The CEWG Working Group advises that women should be aware of the early symptoms of breast cancer, such as*
 - ▣ a change in the size or shape of the breast
 - ▣ a change in skin texture of the breast
 - ▣ a rash around the nipple(s)
 - ▣ discharge from one or both nipples
 - ▣ new and persistent discomfort or pain in one part of the breast or armpit
 - ▣ a new lump or thickening in the breast or armpit
- Women should visit their doctors promptly if these symptoms appear.

Screening Programme

Components of a Screening Programme

- The screening test (e.g. Clinical breast exam; Mammography – Ultrasonography)
- The diagnostic test (e.g. Fine needle biopsy; excisional biopsy)
- Treatment (e.g. surgery, chemotherapy)

**Incidence rate per 100,000 women
2000 - 2007**



The Performance of MMG as a Breast Cancer Screening Test for Women 50 – 64 Years

	Breast Cancer (Positive)	Breast Cancer (Negative)	
MMG (Positive)	13	500	513
MMG (Negative)	2	9485	9487
	15	9985	10,000

For women 50 to 64 year, annual incidence = 150 / 100,000
 At steady state, prevalence of Breast Cancer = 150/100,000
 Sensitivity = $13/15 = 87\%$
 Specificity = $9485/9985 = 95\%$
 Positive Predictive Value = $13/513 = 2.5\%$
 Negative Predictive Value = 99.9%

MMG Screening for Women 50 to 64

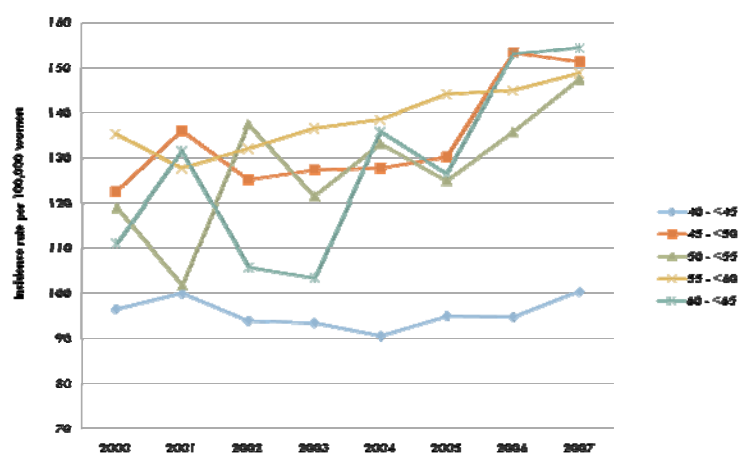
- True positive: 13 of 10,000 screened have disease diagnosed early (total n = 819)
- True negative: 9485 of 10,000 screened are correctly reassured that they are free from the disease
- False Positive: 500 of 10,000 screened (who do not have the disease) (total n = 31,500)
 - Subject to invasive diagnostic procedures; overload the secondary service
- False negative: 2 out of 10,000 screened who have the disease (total n = 126)
 - Falsely reassured
- Women with a positive screening result: chance of having the disease < 2.5%
- Women with a negative screening result: chance of being normal (no disease) > 99.9%

Population of women 50-64 = 630,000 (2007)

MMG Screening for Breast Cancer in Women 40 – 49

- The incidence is lower
- Have faster growing cancer
 - ▣ cancer too small to detect at one screening, but already progressed to advanced stage at subsequent screening
- Have denser breast tissues
 - ▣ Poorer performance of MMG: ↓ sensitivity

**Incidence rate per 100,000 women
2000 - 2007**



The Performance of MMG as a Breast Cancer Screening Test for Women 40 – 44 Years

	Breast Cancer (Positive)	Breast Cancer (Negative)	
MMG (Positive)	7	999	1006
MMG (Negative)	3	8991	8994
	10	9990	10,000

For women 40 to 44, annual incidence = 100 / 100,000

At steady state, prevalence of Breast Cancer = 100/100,000

Sensitivity = $7/10 = 70\%$

Specificity = $8991/9990 = 90\%$

Positive Predictive Value = $7/1006 = 0.69\%$ (1 in 150)

Negative Predictive Value = $8991/8994 = 99.9\%$

MMG Screening for Women 40 to 44

- True positive: 7 of 10,000 screened have disease diagnosed early (total n = 252)
- True negative: 8991 of 10,000 screened are correctly reassured that they are free from the disease
- False Positive: 999 of 10,000 screened (who do not have the disease) (total n = 35964)
 - Subject to invasive diagnostic procedures; overload the secondary service
- False negative: 3 out of 10,000 screened who have the disease (total n = 108)
 - Falsely reassured
- Women with a positive screening result: chance of having the disease = 0.69% (1 in 150 with screen positive results has the disease)
- Women with a negative screening result: chance of being normal (no disease) > 99.9%

Population of women 40-44 = 360,000 (2007)

To Support the Implementation of a Breast Cancer Screening Programme

- There should be evidence from high quality Randomised Controlled Trials that the screening programme is effective in reducing mortality
- There should be evidence that the screening programme is clinically, socially and ethically acceptable to health professionals and the public
- The benefit from the screening programme should outweigh the physical and psychological harm (caused by the test, diagnostic procedures and treatment)
- There should be evidence from cost benefit and/or cost effectiveness analyses

Breast Cancer Prevention Services in
DH

Primary Prevention

- Healthy lifestyle Workshop in WHCs

- Healthy diet
- Physical activities
- Weight management

(Community-wide healthy lifestyle promotion actions)

- Quit smoking class

- Active case-finding & Referral in MCHCs / WHCs

(Legislation on tobacco control)

- Breastfeeding support programme in MCHCs

(Other actions on protecting, promoting & supporting BF)

Secondary Prevention

- Promote “Breast Awareness”

- Aware of symptoms of breast cancer & promptly seek medical advice

- Clinical Breast Examination

- Opportunistic (AN, PN, FP, WHS)

- Mammography

- High risk

Updates on Services

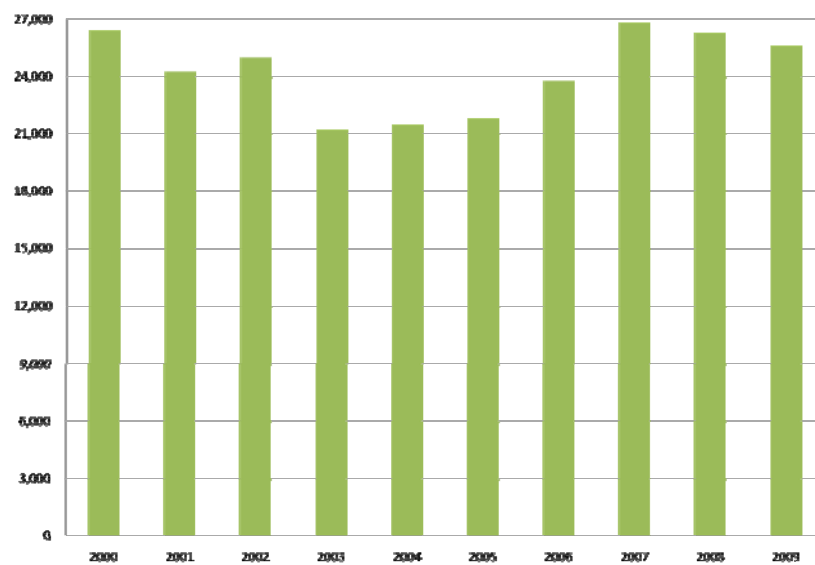
Utilisation of Woman Health Service

- 3 WHCs
- 10 MCHCs
- Quota / utilisation in the last 3 years

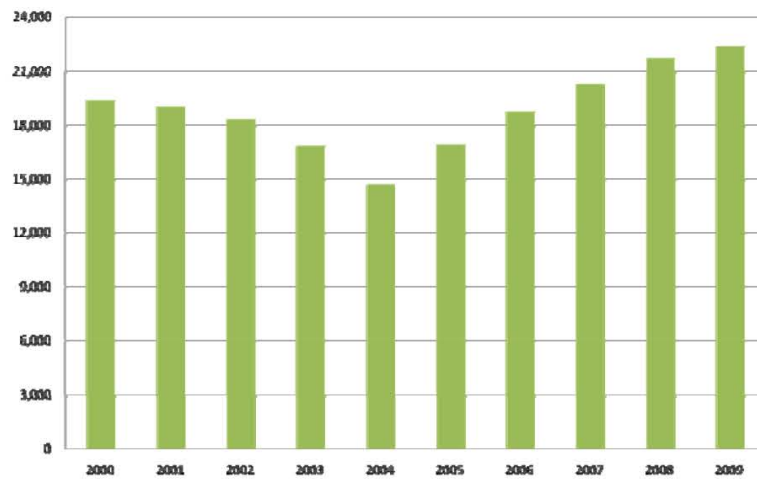
		2007	2008	2009
3WHCs	Quota	18000	17000	18000
	Utilisation rate	91%	90%	88%
10 MCHCs	Quota	4400	4400	4400
	Utilisation rate	66%	70%	75%
Total Quota		22400	21400	22400
Overall Utilisation rate		86%	86%	85%

Managing an Increasing Workload

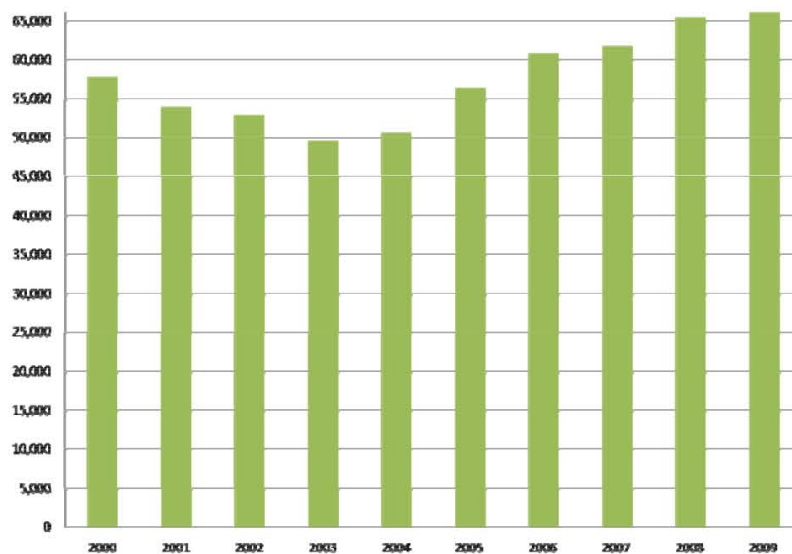
Antenatal (New) Cases 2000-2009



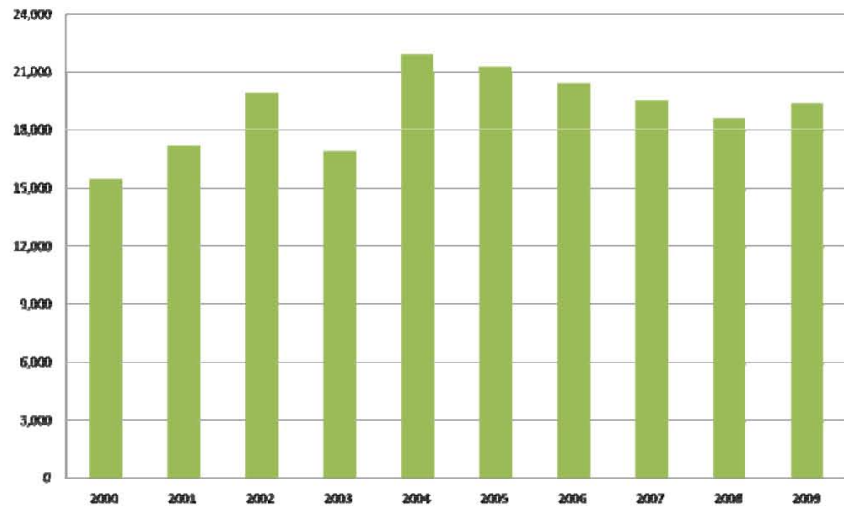
Postnatal (New) Cases 2000-2009



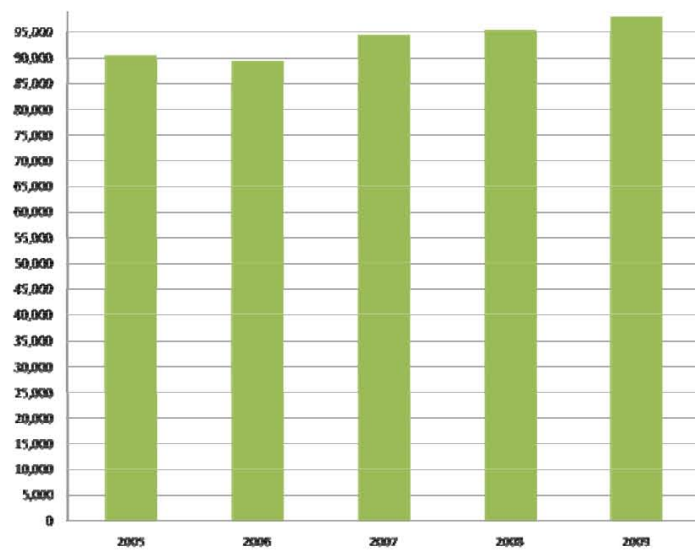
Child Health (New) Cases 2000-2009



Women Health Service (New & Old) Cases 2000-2009



Cervical Screening 2005-2009



New Initiatives

- Taskforce on Hong Kong Code of Marketing of Breastmilk Substitutes (June, 2010)
- Universal antenatal Down's Syndrome Screening (July, 2010)
- Women with physical disabilities – gynecological couch with adjustable height: one @ MCHC (2011-12)
- Women with depression
 - ▣ Screening for postnatal depression (part of CCDS)
 - ▣ Development of perinatal mental health service by HA psychiatrists (antenatal & postnatal depression)

- Increase coverage of cervical screening (to “hard-to-reach” women)
 - ▣ Women who have never been screened: Health talk & block booking for women’s groups
 - ▣ Pilot project: Methadone users; women in correctional institutions (under planning)
- Provision of Family Planning (& Cervical Cancer Screening) services to Female Methadone users: A Pilot Project (Aug, 2010)
- To develop more comprehensive & accessible health information.....

THANK YOU