



Diabetes Mellitus Complication Screening

- *Primary Health Care Nursing Perspectives*

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2008/5/15

HA Convention 2008



UKPDS

- Upon diagnosis of type 2 DM

- 33% HT
- 22% retinopathy of certain degree
- 20% microalbuminuria

- Suboptimal DM control

➔ deterioration in severity of complications

➔ increase morbidity & mortality





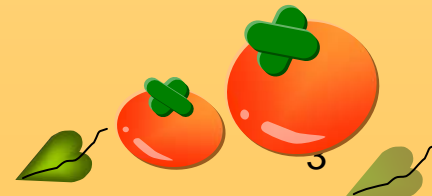
Macro-vascular Complications

Stroke attack

- Coronary heart disease



- Peripheral vascular disease





Micro-vascular Complications

- **Diabetic Eye diseases**

- leading cause of visual impairment
- glaucoma; cataract
- retinopathy & maculopathy

- **Diabetic Neuropathy & DM foot**

- non-traumatic amputation of lower limb

- **Diabetic Nephropathy**

- leading cause of end-stage renal failure

- **Diabetic Erectile Dysfunction**





High medical cost for Major DM Complications

- Stroke bed
- Leg amputation
- Renal dialysis
- PTCA
- Laser therapy for DM retinopathy








Quality care for DM

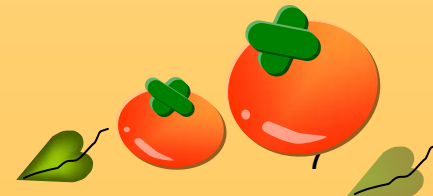
- Prevent occurrence of DM complications
- Delay inevitable occurrence of the complications
- Decrease damage from existing complications





Local Clinical Situation

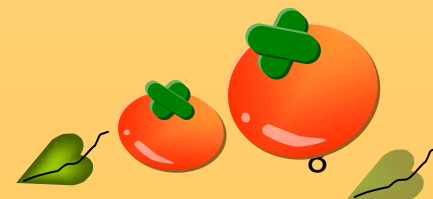
- DM High prevalence rate
-  Asymptomatic in suboptimal control
- Non-invasive screening tool available
- Effective intervention available
-  Potential gain in quality of life
- Save medical resources in long run 





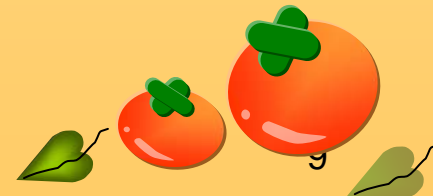
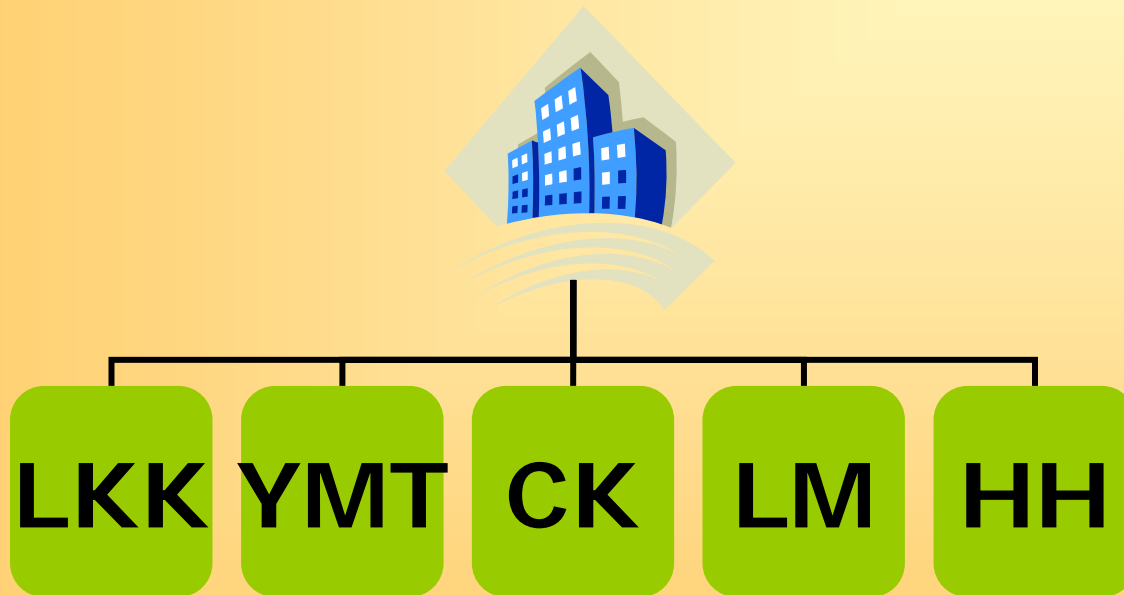
Objectives

- Early detection of DM complications
- Evaluation of level of DM control
- Promote patient self management
 - Increase the awareness of DM complication
 - Empowerment for self management
- Reduce DM related Morbidity / Mortality
- Save the Society Cost in Long-run





DMCS for DM Patients attending KCC GOPCs





- **Target:** DM Patients
- **Protocol:** HA DMCS Protocol
- **Annual target:** 7,800 cases
- **Fee of charge:** as SOPC
- **Exclusion criteria:**
 - Patients with limited lifespan
(e.g. terminal cancer with diffuse metastasis)
 - Patients with poor cognitive / communication function (e.g. severe dementia)
- **Waiting time:** 1 – 2 week





Role of Team Member

• Registered Nurse (Project Manager)

- Preparation, Arrangement & Supervision
- Foot assessment
- Digital retinal photo capturing
- Case assessment, education & counselling
- Recruit patient to DM Support Group
- Liaise with FM Specialist
- Call back & follow up
- Staff training, statistic & research





Role of Team Member

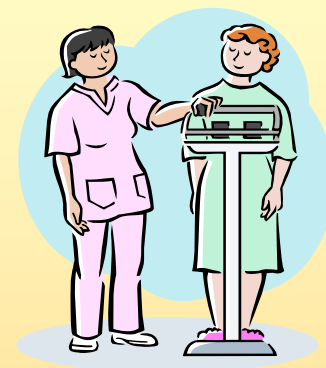
- **Technical Service Assistant**

- *Specimen collection (blood & urine)*

- *Simple Parameter Measurement*

BP, Pulse, BMI, WHR, VA

- *+/- data entry*





Role of Team Member

- **Family Medicine Specialist**

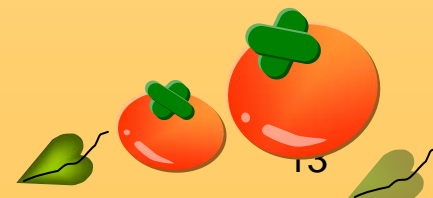
- *Laboratory data analysis*

- *Retinal photo interpretation*

- *DMCS report synthesis*

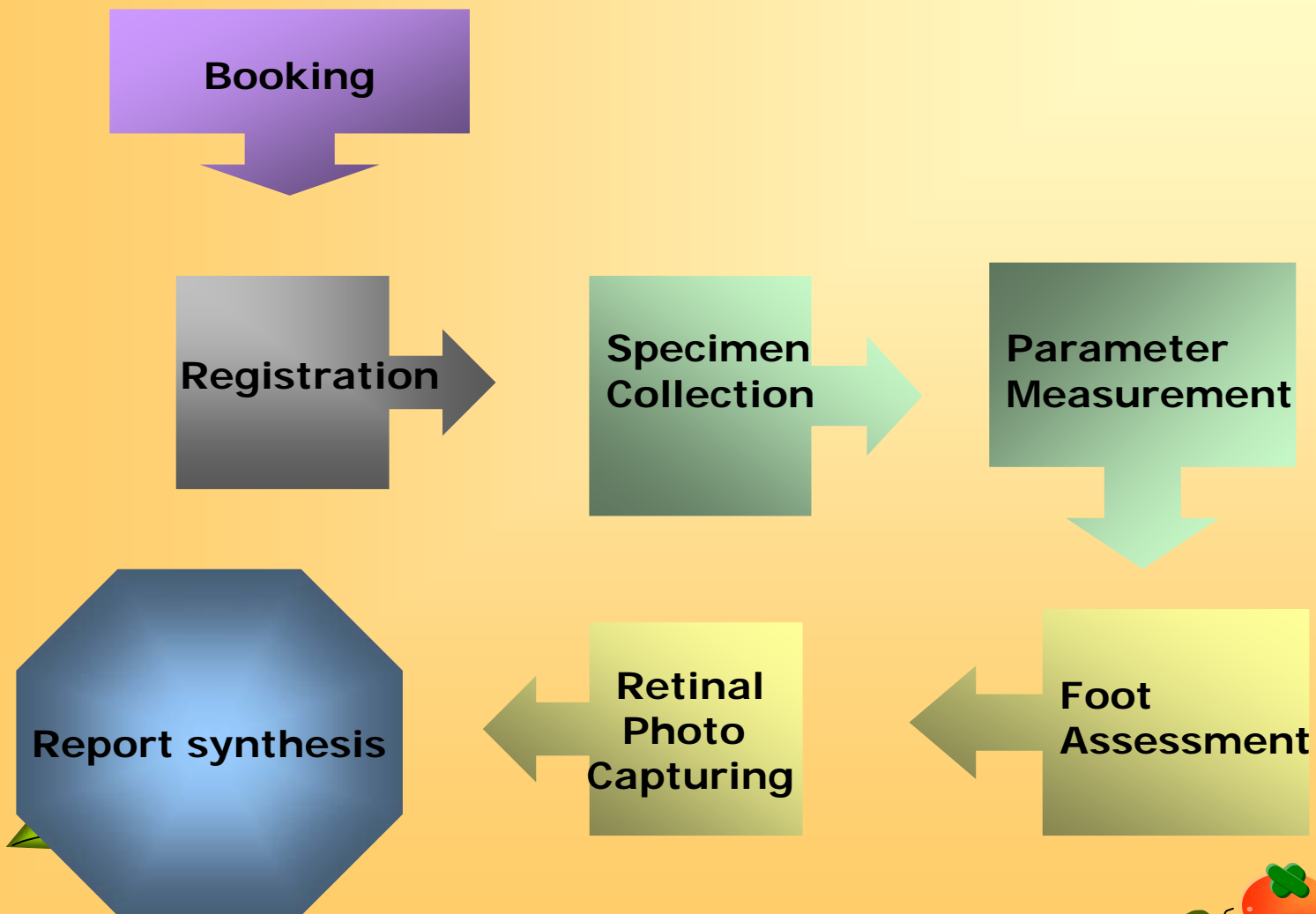
- *Problem case referral & follow up*

- *Professional advice & support in staff training*



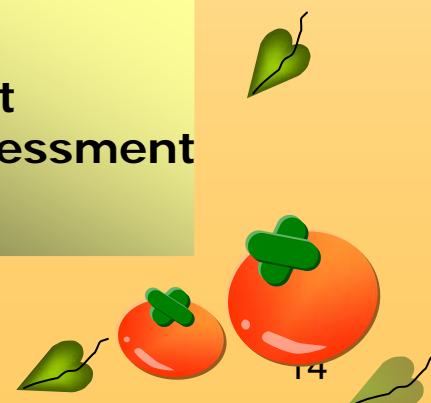


Workflow & Logistic



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Implementation Phase

Phase I
Dec 05 – Aug 06
(Pilot)

LKK case only

*4 ~ 6 case /session
one session per wk*

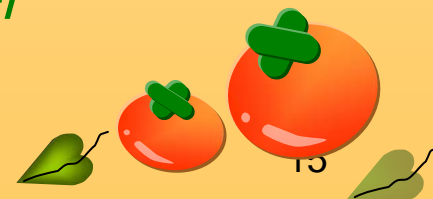
- *Personnel training*
- *Logistic design & arrangement*

Phase II
Sep 06 – Sep 07

Extended to 5 GOPCs

*15 ~ 21 case /session
one session per wk*

- *Increase Output in limited manpower*





Implementation Phase



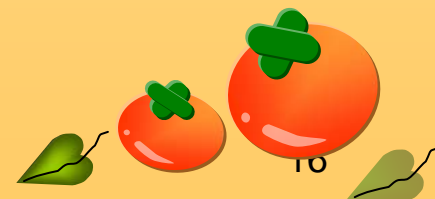
Phase III
Since Oct 07
(Full Implementation)

30 case /session
5 sessions per wk



Full implementation of the project

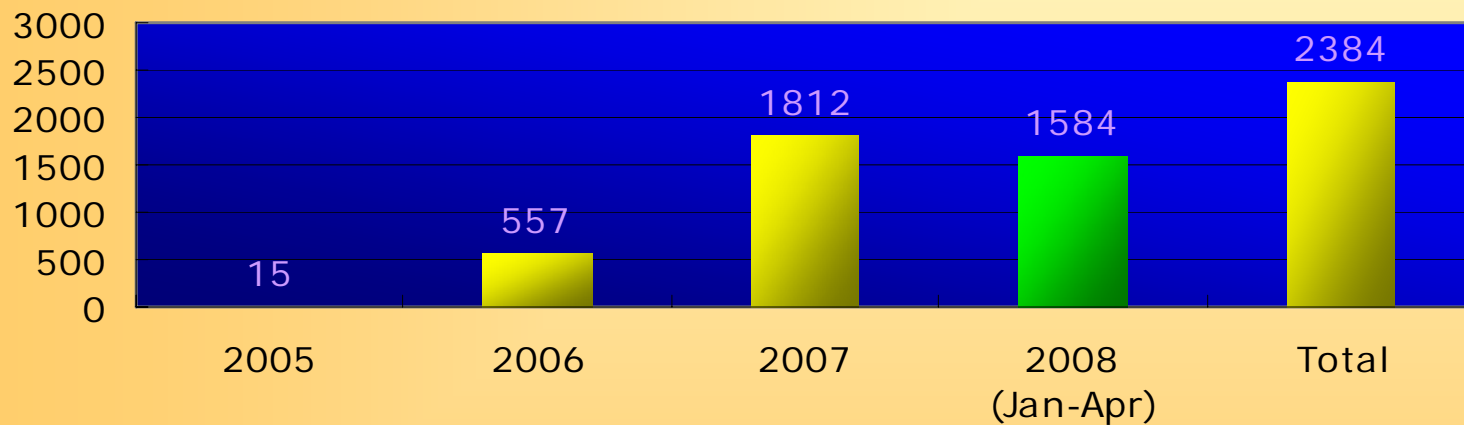
- *Additional manpower*
 - *Support from Administration / Specialist*
 - *Target for whole coverage all DM in KCC*
- 





Service Output

DMCS Attendance



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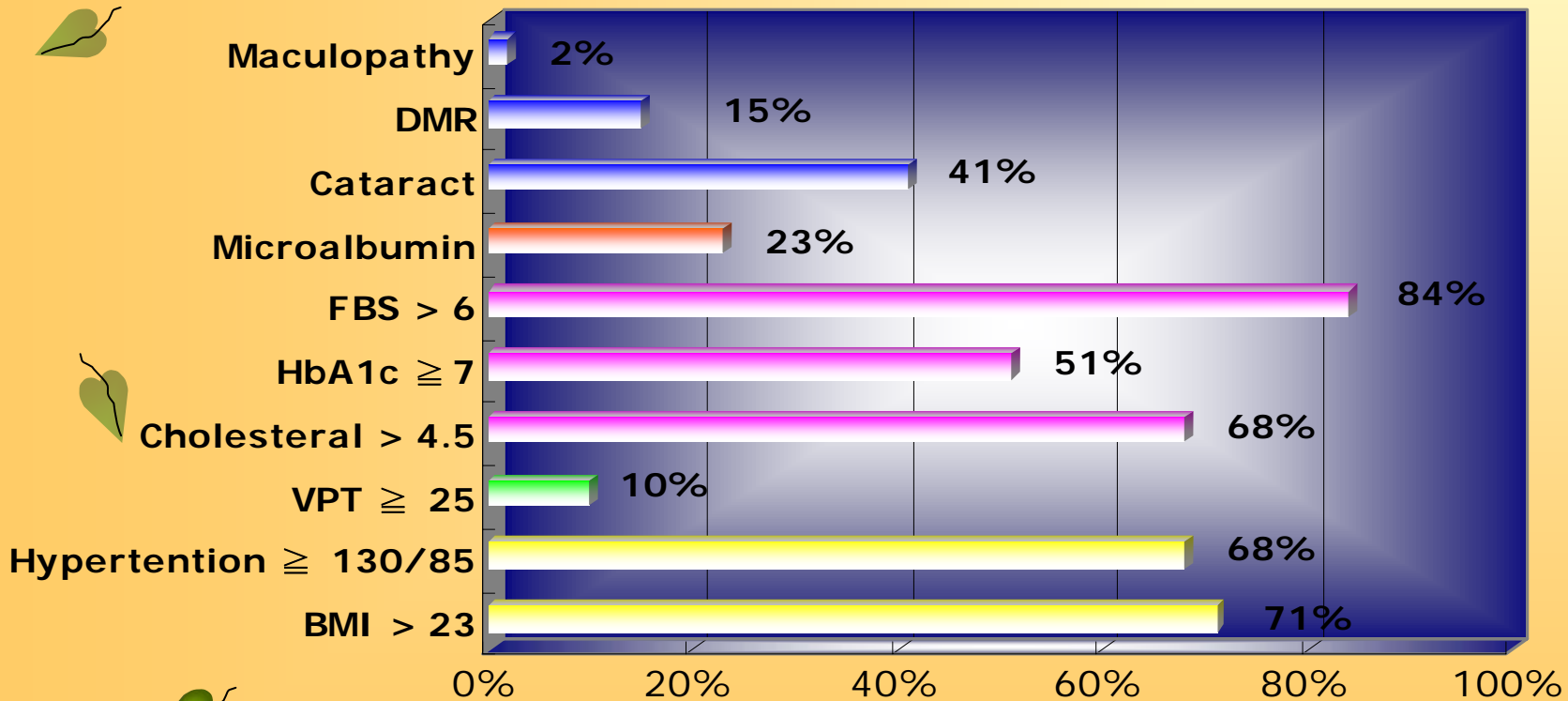
Service Output

DMCS Attendance by Clinic 2005-2007





Case Summary





Potential Benefit

- **Patient**

-  ➤ *Enhance self awareness*
-  ➤ *Empowerment in self Management*
-  ➤ *Early detection & intervention*
-  ➤ *Improve the quality of life*
-  ➤ *Improved patient satisfaction*

- **Nurse**

-  ➤ *Professional development & autonomy*
-  ➤ *Job satisfaction*





Potential Benefit

Primary Health Care Team work

➤ *Enhance Intrasectoral Collaboration*

Contribution to the Community

➤ *Chronic disease management model*


➤ *Reduce the medical expenditure*





Essence of Success

Establishing a New Service Model

- *Entertain high volume of patient*
- *One Stop Complication Screening*
- *Comprehensive program*
-  ➤ *Quality service in primary sector*
- *Consistent staff training standard*





Conclusion

- Successful in detecting complication
- Provide timely intervention
- Increased patient awareness & empowerment for self care
- Enhanced nurse role in DM management
→relieving doctor's heavy workload

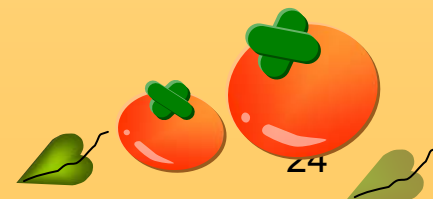




Acknowledgement

- *Dr. David Chao, CCOS(FM & PHC)/KEC & KCC*
- *Dr. S C Tiu, CON (MED)/QEH*
- *Dr. Victor Choi, SMO YMT JCC*
- *Dr. Ching Kam Wing, FM Specialist / MO i/c LKKC*
- *Dr. Law Tung Chi, FM Specialist / MO HHC*
- *Dr. Ng Ying Wai, MO(MED)/QEH*
- *Ms. Winnie Cheng, NS(MED)/QEH*
- *Ms. Kathy Cheung, APN (W & UMgt) LKKC & HHC*
- *Ms. Shirley Hung, APN (W & UMgt) CKHC & LKMD*
- *Ms. Chan Lai Hung, APN (W & UMgt) YMT JCC*

The Retinal Camera was sponsored by S K YEE Medical Foundation 2005





Thank You



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