

# Partnering with family doctors to study mental health in the community:

## *A practice-based primary care research network in action*

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Family Medicine &  
Primary Care Symposium  
Nov 26, 2011



# Background to this talk



# diamond

Diagnosis, Management and Outcomes of  
Depression in Primary Care



Research Council and the Victorian Centre for Excellence in Depression  
between beyondblue and the State Government of Victoria

# The Five Weekend Research Program

A Facilitators Workshop  
Hong Kong June 5, 2009



WONCA 2009:  
BUILDING BRIDGES



食物及衛生局  
Food and Health Bureau



研究基金秘書處  
Research Fund Secretariat



Commissioned research on mental health policy and services



# Why do we need to study depression in primary care?



1. Depression is commonly managed by PCPs
  - Family doctors well placed to serve as the central health care provider
    - Entry point to health care system
    - Longitudinal relationship with patients
    - Ability to integrate mental care with care of physical conditions
    - Ability to deal with undifferentiated problems
  - 80% seen and treated completely within primary care (UK) NICE 2004



2. Lots of controversy regarding diagnosis and management (and access to treatments)
  - Lack of evidence on 'best treatments' for the primary care setting
3. Patients want individualized care
  - 'One size' does not fit all Johnston 2007
4. Service models and mental health policies constantly evolving
  - Research to inform new policy
  - Research to evaluate policy implementation





# What are the key challenges to addressing depression in primary care patients?



1. How can we best identify people with depression?
2. How can we best treat people with mild depression?
3. How can we best understand what our patients with depression want from primary care

Lester & Howe 2008





# What do we know so far about depression in primary care?



# 1. Common in primary care

- Global prevalence 10-20% Mitchell 2009

# 2. Prevalence is increasing

- Doubled in US between 1992-2002 Compton 2006
- Global health burden predicted to be 2<sup>nd</sup> to IHD by 2020 Murray 1997

# 3. PCP's miss 50% (???)

- Recognition of mod-severe depression >> mild depression Mitchell 2009



## 20% prevalence (urban)

20 depressed patients - GP will correctly identify 10 cases

## 10% prevalence (rural)

10 depressed patients – GP will correctly identify 5

**More severe cases are more reliably detected than milder cases**

80 non-depressed patients – GP would correctly identify 65 as non depressed, but falsely diagnose 15 as depressed

90 non-depressed patients – GP correctly identifies 73; falsely diagnoses 17 as depressed

**Many of the false positives have related disorders such anxiety disorder, adjustment disorders, sub-threshold mood disorder**

Ref: Mitchell et al. Lancet 2009





1. What is the ‘natural’ course of depression for patients in our setting?
2. What are the outcomes of depression
  - Does the doctor’s diagnosis affect outcomes
3. What are the predictors for prognosis?
4. How can we identify those patients who will benefit most from medical intervention?
5. How do our patients want to have their depression managed?

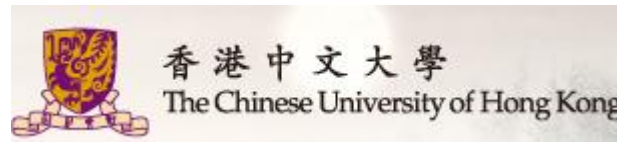


# Epidemiology and natural history of depressive disorders in Hong Kong's primary care



# Investigators

- Dr Weng Yee Chin (HKU)
- Prof Cindy Lam (HKU)
- Prof T.P. Lam( HKU)
- Dr Daniel Fong (HKU) -statistician
- Prof Samuel Wong (CUHK)
- Dr Billy Chiu(HKSH)
- Dr Stella Chan (Hospital Authority NTEC)
- Dr David Chao (Hospital Authority KEC)
- Prof Lee, Wing Ho Peter – clinical psychologist
- Prof Wong, Wing Shan Grace Josephine – psychiatrist





# Research Team

- Our research assistants and field workers
- Ms Kit Chan (project coordinator)
- Ms Vivian Chau
- Ms Joanne Kong
- Ms Henrietta Lau
- Ms Emily Chan
- Ms Esther Lau
- Dr Horace Cheung
- Ms Jaymee Kwan
- Ms Chloe Ling



# Project overview

examine >7500 adult patients who receive care from PCPs across HK.



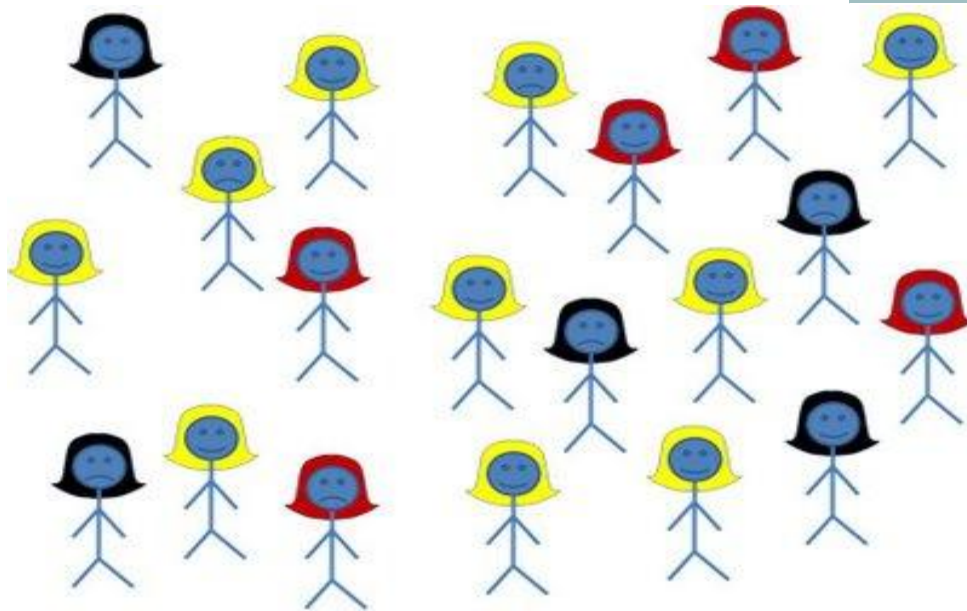
follow a cohort of >3750 patients over 12 months



- prevalence, incidence, remission and relapse rates
- patient and doctor factors that may potentially aid or predict recovery from depression
- how doctors manage patients with depression
- patients pathways of care
- patient's health seeking preferences



# Cross Sectional Study



**Recruited 60 PCPs.  
All eligible patients presenting on 1 randomised day  
each month during study period**

**Oct 2010 - Jan 2012**

**Screened > 7500 patients with PHQ-9  
CES-D 20, SF-12v2, demographic data,  
health and mental health service  
utilization**



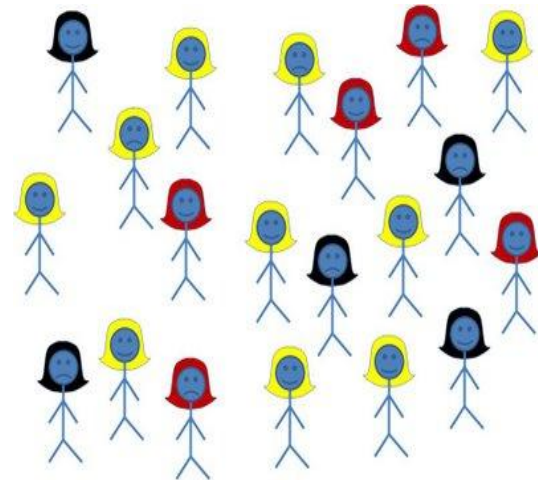
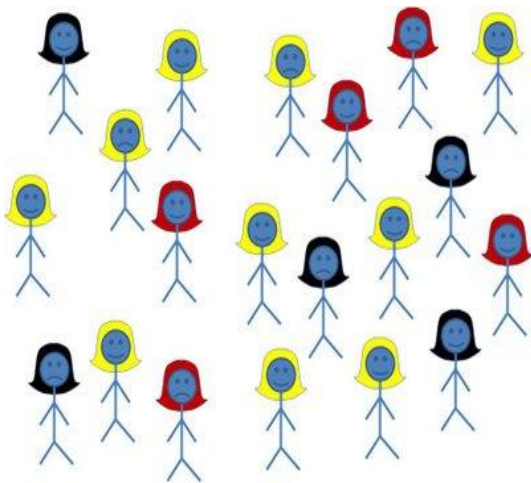
**Estimation of  
prevalence  
using PHQ  $\geq 9$**

**Diagnosed by GP  
to have depressive  
disorder**

**Doctor provides data  
on patient diagnosis  
and treatment**

**Descriptive analysis of  
the pathways of care  
by doctors**

# Cohort Study



**Screened 7500 patients from cross-section study**

**3750 Consent to F/U**

**Oct 2010 - Jan 2013**

**PHQ-ve**

**PHQ+ve**

**Follow-up telephone interview at 12, 26, 52 weeks**

**- Estimation of incidence  
- Control group for comparing outcomes**

**Diagnosed by GP to have depression**

**Not diagnosed by GP to have depression**

**Follow-up telephone interviews at 2, 12, 26, 52 weeks**  
**- natural history (remission/ relapse/ severity)**  
**- evaluate outcomes**  
**- examine pathways of care**

**60 primary care doctors**

**As of 31 Sept 2011**

**Recruited 7202 patients (baseline)**

RR 81%

Target N= 7500

**2998 consented to join cohort study**

RR 42%

Target N= 3750

**2597 PHQ-ve**

Target N= 3000

**401 PHQ+ve**

Target N= 750

**Completed 2 week FU = 234** (drop-out 10)

**Completed 12 week FU = 1562** (drop-out 60)

**Completed 26 week FU = 786** (drop-out 17)

**Completed 52 week FU = 0** (drop-out 0)



## Prevalence of PHQ+ve screening in the study population (preliminary findings)

	<b>PHQ +ve</b> N (%)	<b>PHQ -ve</b> N (%)
<b>Cross-section population</b> <i>(as of May 2011)</i>	432 (12.2%)	3120 (87.8%)
- Public sector	139 (14.7%)	804 (85.3%)
- Private sector	293 (11.2%)	2316 (88.8%)
<b>Cohort population</b> <i>(as of May 2011)</i>	222 (13.1%)	1467 (86.9%)
<b>Cohort population</b> <i>(as of Sept 2011)</i>	449 (13.4%)	2903 (86.6%)

Note. "PHQ+ve" refers to patients whose PHQ9 composite score ranges from 10-24  
 "PHQ-ve" refers to patients whose PHQ9 composite score ranges from 0-9

# Who is taking part in this practice-based research network?

How did we find 60 primary care doctors to join this study?



# Doctor recruitment strategy

1. Mail out to HKCFP mailing list (n=1500)
2. Personally approached each HA Cluster Department of Family Medicine Head to help recruit public sector doctors
3. 2 months later follow-up bulk e-mail to HKCFP members
4. Snowballing to increase the number of doctors in Kowloon and New Territories



# Doctor response rate

1<sup>st</sup> mailing : 70 responses but only 40 doctors eligible and/or agreed to join upon receiving further information

- started patient recruitment October-December 2010

2<sup>nd</sup> e-mailing and snowball: further 20 responses; all eligible and all joined

- started patient recruitment January –April 2011

- **Not eligible: did not work in primary care setting, no endorsement from employer, did not work in HK**
- **Refusals: clinic too busy, clinic too quiet, could not commit for 12 months**

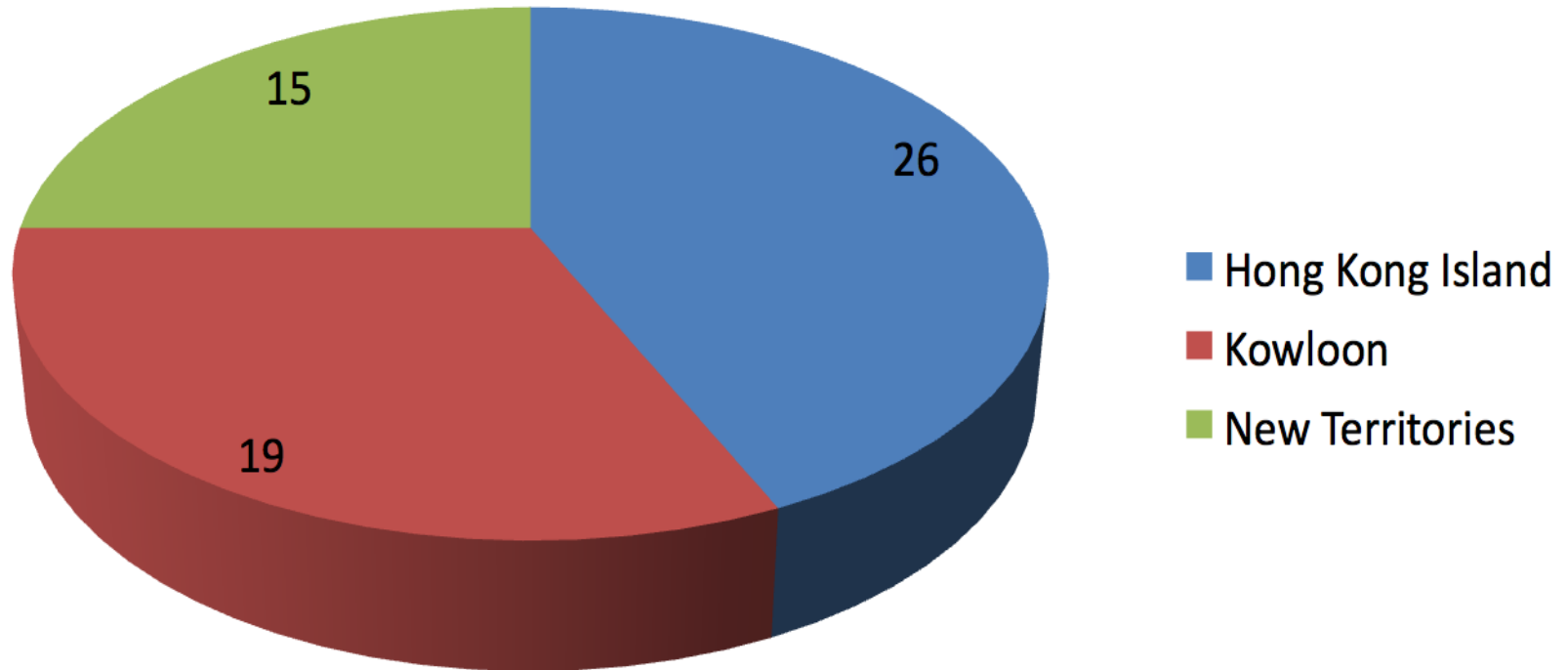


## Doctor's Demographics (n=60)

Sex	42 Male: 18 Female
Age	Mean age 44.74 years (range 30-75 years)
Place of graduation	47 local graduates 13 overseas graduates China 2; UK 3; Aust/NZ 7; Other 1
Received formal FM training	36 in or completed vocational training in Family medicine.
Undertaken further training in mental health	14 completed Diploma in Psychological Medicine



## Distribution of practice locations for 60 doctors

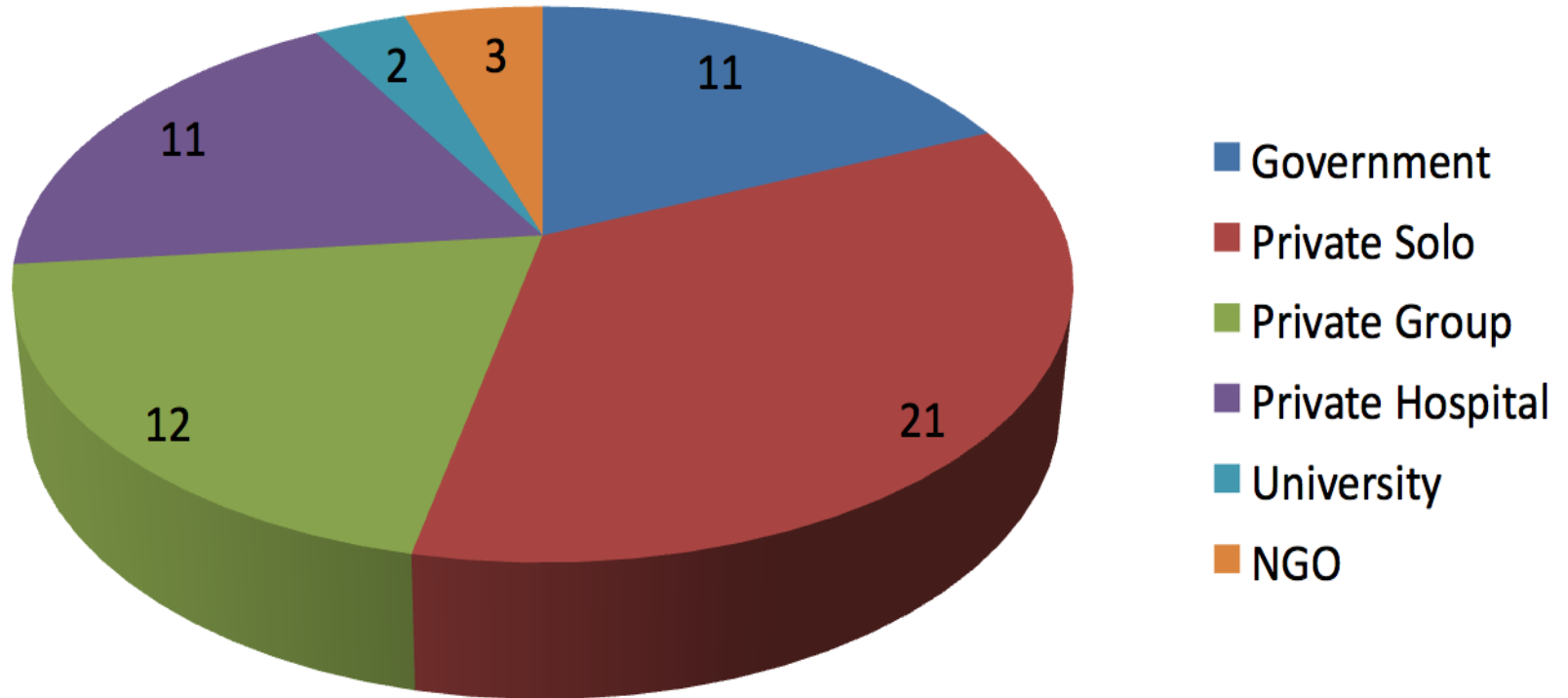


# Distribution of Practices across HK





## Type of Practice for 60 doctors



# Reasons for participation

1. CPD points
2. Underlying interest in mental health
3. Academic ties/ gain research experience
4. Wanted to do this sort of study themselves but did not have the manpower or expertise
5. QA reasons – enhance quality of care
6. Thought it was a good idea (‘research sightseeing’)
7. Wanted to show support for the activities of our academic unit



# Why do we need to engage doctors in the community to participate in mental health research?



- Primary care needs a strong research culture and evidence base if it is to deliver cost- effective care

Del Mar 2004

- Generation of relevant and valid research questions
- Contributes to modification of clinician behaviour and enhanced quality of care
- Useful for assessing the effect of mental health policy changes on practice and patient outcomes
  - identify the challenges of implementing evidence supported interventions



# What are the benefits of using PBRN to study mental health?



- PBRN's are collaborations of practice settings that work together to generate research knowledge
  - Used to address research questions which needs 'real world' settings to be answered
  - “Laboratories” for health care services research in the community and in Family Medicine Green 2001
- Practice-based studies often use an observational design
  - Particularly useful for examining complex clinical interactions such as those involved in providing mental healthcare

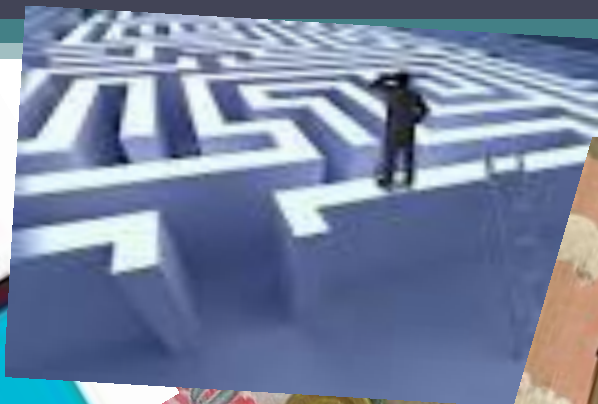


- Allows the researcher to examine what really happens in practice
  - Useful for evaluating the effectiveness of practice innovations in the real world care
  - Useful for informing/ evaluating changes to service policy
- Allows the members to help guide the research agenda
  - identifying their own research questions and priorities
- PBRN's are under-used in mental health services research McMillan 2009
  - Logistical complexity
  - Many barriers





# What are the barriers to undertaking practice-based studies in mental health?





# Challenges faced by PBRNs


1. Logistical complexity
2. Maintaining relationships with members
3. Financial/ Institutional support
4. Ethical considerations
5. Productivity and dissemination of findings
6. Scientific rigor
7. Generalisability of findings



# Where to from here?



# Practice-based research networks in HK

- Still in our infancy
- In the right direction 
- Need a lot of support
  - Enhance primary care research capacity
  - Better infra-structure to support primary care research and PCRN's
  - Academic leadership and guidance
  - Instill a culture research in our discipline.



- Study due for completion in April 2013.
- How do we continue our engagement with doctors participating in a network?
- How do we facilitate sustainability and growth of a research network?
- How do we maximise the potential of a research network?



# Anybody interested?

- For further information:

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# References

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