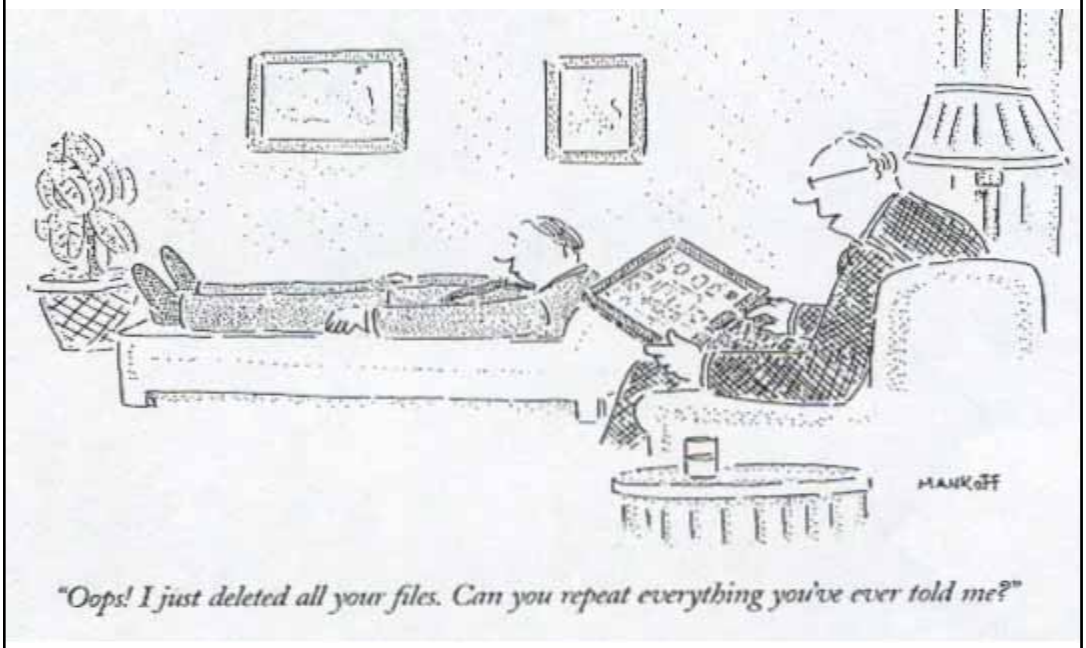
# CCM for mental health services in primary care : Literature Review and key lessons learnt

**Nick Kates**

**Hamilton HSO Mental Health and Nutrition Program**

**Calgary September 28th. 2005**




*"Oops! I just deleted all your files. Can you repeat everything you've ever told me?"*

# Plan

- The Ontario context
- Hamilton HSO Mental Health and Nutrition Program
- Traditional planning priorities
- Evidence from the literature
- Evidence from Breakthrough Series
- Summary of the evidence
- Application to the Hamilton Program

# The Ontario Context

# Ontario

- No Regional authorities – Local Health Integration Networks (LHINs)
- Very few CDM programs
- Some promoted by PHCTF – Ends March 31st
- Bottom-up and top down

- Family Health Teams
- Comprehensive primary care
- Emphasis on
  - Prevention and health promotion
  - Self-Management
  - Client-centred care
  - Management of chronic diseases

# Hamilton HSO
# Mental Health & Nutrition Program

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## HSO Mental Health and Nutrition Program

- 38 practices
- 51 sites
- 80 family physicians
- 170,000 patients (38%)

| | | | |
|---|---|---|---|
| • Counsellors | 1:8000 | 24 FTE | 41 |
| • Psychiatrists | | 2.0 FTE | 12 |
| • Registered Dietitians | | 6.0 FTE | 8 |

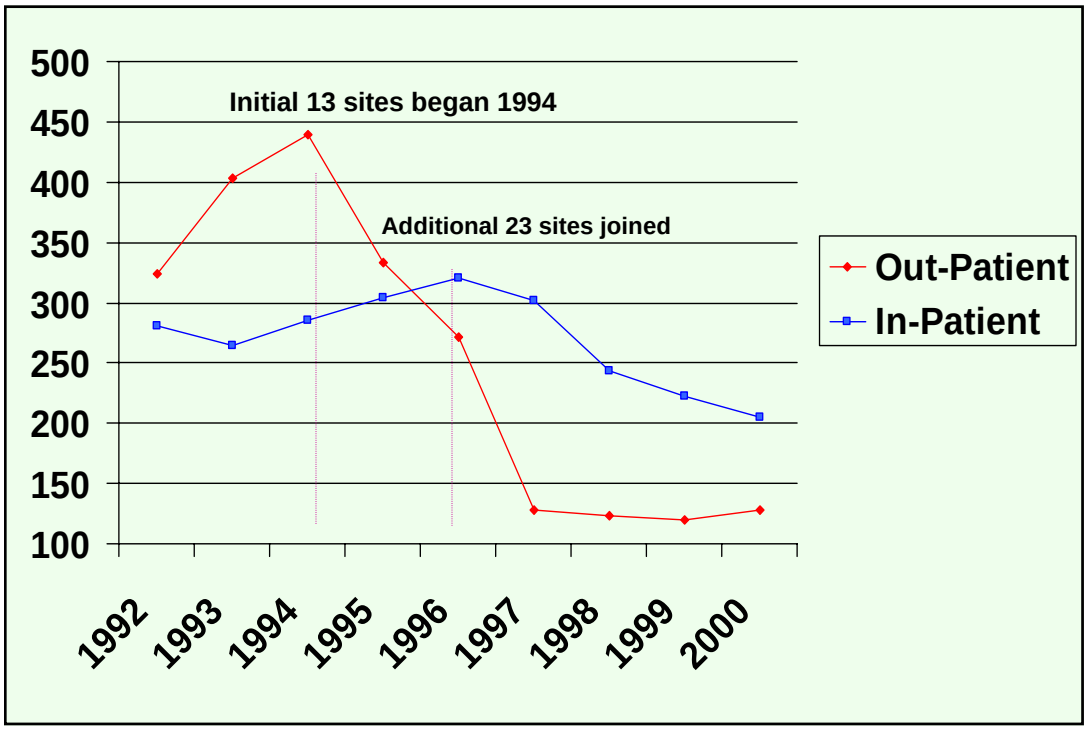
- Co-ordinated through a central administrative body

## Referrals 2004 : Counsellors

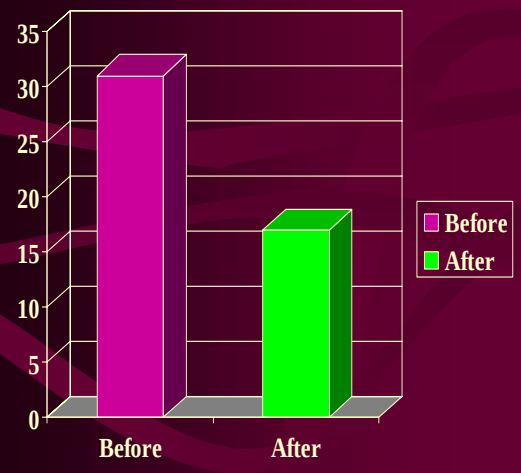
| | | |
|---|---|---|
| Total | 4004 | |
| Counsellors | 3460 | (87%) |
| 161 per Full Time Equivalent | | |
| Psychiatrists | 1270 | (31%) |
| 594 per Full Time Equivalent | | |

# Benefits of the program

- Increases capacity of mental health system
- Increases capacity of primary care to handle mental health problems
- Improves access to mental health care
- Improves access for underserved populations
- Changes patterns of utilisation of mental health services



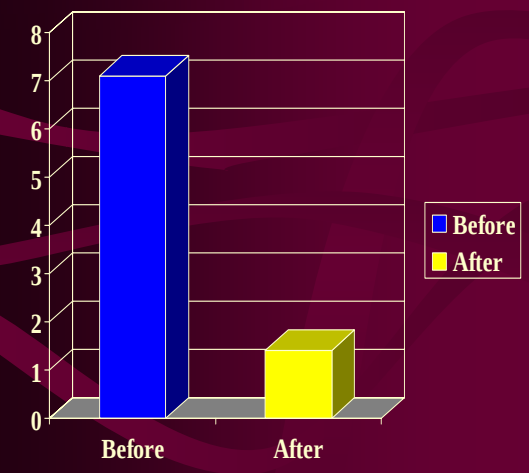
# Outcome measures CES-D




- **Mean change 14**
- **Improved > 1 SD 58%**
- **Score reduced > 50% 74%**

All changes significant p<.05

# Outcome measures 12 Item GHQ




- **Mean change 5.7**
- **Improved > 1 SD 84%**
- **Score reduced > 50% 81%**

All changes significant p<.05

## Benefits of the program

- Improves quality of care
- Improves co-ordination of care
- Improves continuity of care
- Improves communication

## Satisfaction with the program

- High level of satisfaction – consumers (VSQ) > 90%
- High level of satisfaction – providers > 90%

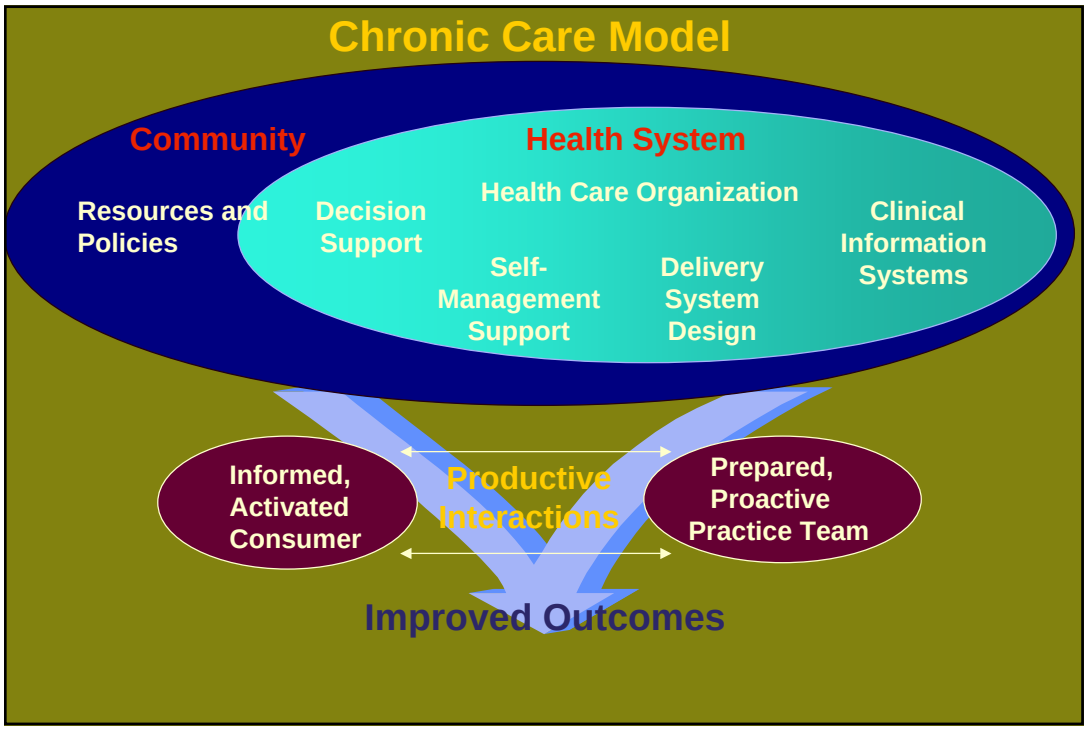
## Evaluation of the Hamilton HSO MHNP

- **Received 1999 Significant Achievement Award from the American Psychiatric Association**
- **By Ontario Ministry of Health and Long-Term Care**
  - **Completed May 2005**
  - **Very positive**
  - **Seen as a provincial model**
- **Set up the Ontario Centre for Collaborative Primary health Care to consult to other programs**

## Program Priorities 2004 – Pre CDM

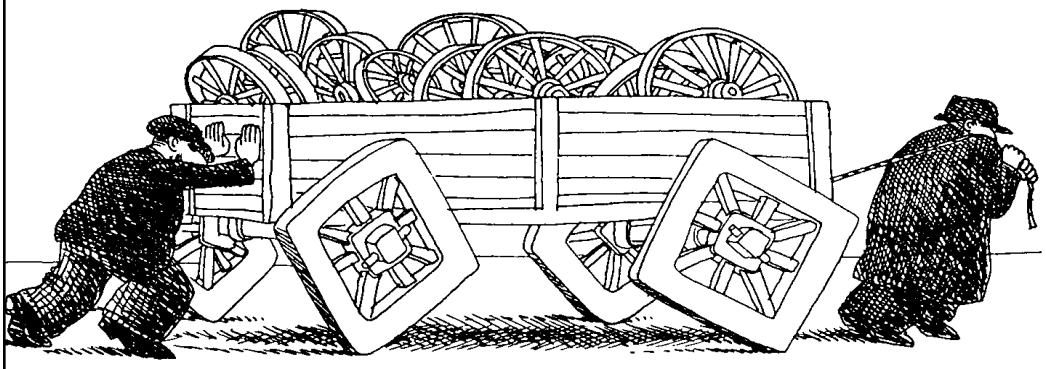
- Develop a Pain Component
- Develop Peer Support
- Review Services Delivered for Individuals with Serious Mental Illness
- Develop Standardized Models of Care
- Develop an Addictions Pilot
- Expand Child Psychiatry

# Changes over the last 12 months



# Use of the Chronic Care Model

- Care of specific problems
- Analyse the program
- Analyse our system of care
- A way of understanding why things do and don't work
- Promote a population focus



**An opportunity to look at new solutions to existing problems**

## Expansion of Hamilton HSO MHNP

- Part of Hamilton Family Health Team - 109 Family physicians
- Doubling size of mental health and nutrition program
- Taking on responsibility for programs for other chronic diseases
- Expansion of role of central co-ordinating body
- Building from the bottom-up

## CDM for Depression - What works
## 1. Evidence from Programs

# Collaborative Management to Achieve Treatment Guidelines

- Patient education
- On-Site consultation by psychiatrists
- Active collaboration with family physicians
- Increased frequency of primary care visits
  - Major depression: 74.4% improved compared to 43.8%
  - Minor depression 60% improved compared to 67.6%

Katon JAMA 1995

# Nurse Telehealth : Adjunctive Care

- Randomised trial for 302 depressed patients on antidepressants from FP
- Intervention
  - usual care
  - telephone calls 10 x 6 mins. over 4 months
  - telephone plus peer support
- Symptoms / satisfaction at 6 & 26 weeks
- Significant improvement in both with call

Hunkeler E. Arch Fam Med 2000

## Impact on depressed high utilisers

- RCT aimed at depressed high utilisers (DMP)
  - Patient education materials
  - Physican education programs
  - Telephone-based treatment co-ordination
  - Antidepressant medication
  - Compared with usual care

Katzelnick Arch. Fam. Med. 2000

## Impact on depressed high utilisers

- DMP group
  - More likely to fill three or more prescriptions
  - Had significantly greater improvement on HAM-D at 1 yr.
  - Improvement began at 6 weeks
  - Improved on mental health, social functioning, and general health self-reports
  - Mean visits increased by 1.6 compared to decrease of 2.0 for controls

## Impact of Quality Improvement Programs for Depression (Wells et al)

- Aimed to improve treatment of depressed patients in primary care
- 46 Primary Care Clinics in 6 HMOs
- Usual care or quality improvement program
  - Commitment
  - Education
  - Identification
  - Referral

## Impact of Quality Improvement Programs for Depressions

- Improved quality of care
- Improved symptoms
- Decreased prescriptions
- Improved retention of improvement

- No change in medical visits

Wells et al JAMA Jan 2000

# RESPECT : Quality improvement

- RCT
- 180 clinicians in 60 practices
- Building on what's already in place

- Care Manager
- Telephone treatment
- Technology for Tracking
- Visits from a psychiatrist
- QI measures in place

- Symptom improvement
- Increased satisfaction

**Dietrich et al Ann Fam Med 2004**

# Impact on Functioning and Cost

RCT
200 patients in 12 practices

- Care Manager
- Activation Program
- 24 months

- Increased depression-free days
- Reduced other health care costs
- Decreased number of work days lost
- Improved quality of life

**Rost et al Medical Care 2004**

# IMPACT : Depression in Seniors

- RCT
- 18 practices, 8 HSOs, 5 States
- 1801 depressed patients

- Intervention
  - Depression care manager
  - Supervised by a psychiatrist
  - Support from primary care specialist
    - education
    - care management
    - support of medication management
    - brief psychotherapy

Unutzer et al JAMA 2002

# IMPACT

- At 12 months 45% improved v. 19%

- More satisfied
- Less symptom severity
- Less functional impairment
- Greater quality of life

- Reduced arthritis pain
- Improved diabetes management

# CDM for Depression - What works
# 2. Evidence from Review articles

## Reviews

Gilbody – Review of depression interventions in primary care

Ofman – 102 CDM Programs – Review of outcomes

Weingarten - Same programs – Outcomes of specific problems

Bamdagarav - 24 CDM Depression Programs

Neumeyer-Grumen - Meta-analysis of CDM Programs

## **Gilbody:** Education and Organizational Interventions - Depression

36 studies (29 RCTs); **inception to 2003**

21 with positive results

*systematic review utilizing a narrative synthesis to evaluate the effectiveness of organizational and educational interventions

**Most likely to be effective if**

- More Complex
- Incorporated Client Education
- Enhanced Nursing Role
- Integrated Primary and Secondary Care

**Gilbody et al, JAMA 2003**

## The Care Model

- **There is substantial potential to improve the management of depression in primary care. Commonly used guidelines and education strategies alone are likely to be ineffective.**

**Gilbody et al. 2003**

## Ofman : Outcomes of CDM

118 programs (102 studies 1997-2001)

11 conditions

- Satisfaction increased 71%
- Adherence 47%
- Disease Control 45%
- Cost reduction 15%

**Ofman et al, Am. J. Med. 2004**

## Weingarten: Comparison of Effects

Same 102 DM studies (118 programs) as Ofman

- Patient Education 92
- Provider Education 47
- Provider Feedback 32
- Patient Reminders 28
- Provider Reminders 19
- Patient Financial Incentives 6

1 = 48 2 = 41 3 = 22 4 = 7

**Weingarten et al. BMJ 2002**

## Weingarten : Significant Improvement by Disease

| Components of Interventions | Total | Depression |
|---|---|---|
| • Patient Education | 24 / 55 | 10 / 18 * |
| • Provider Education | 12 / 32 | 6 / 15 * |
| • Provider Feedback | 9 / 23 | 8 / 11 * |
| • Patient Reminders | 6 / 16 | 2 / 3 * |
| • Provider Reminders | 6 / 10 | 5 / 8 * |
| • Patient Financial Incentives | 3 / 4 | 1 / 1 * |

* = greatest demonstrated improvement of all diseases (%)

## Badamgarav : Sytematic Review of the Effectiveness of CDM Programs

- **24 studies**
- **Pooled results indicated statistically significant improvements in**
  - **Symptoms**
  - **Physical functioning**
  - **Health status**
  - **Satisfaction with treatment**
  - **Adherence to treatment regimens**
  - **Detection rates**
  - **Adequacy of treatment with antidepressants**

**Badamgarav et al. Am J. Psych 2003**

## Neumeyer-Gromen:DM Depression Programs- systematic review and meta-analysis of RCT's

10 studies included in meta-analysis (**until 2002**)

- Significant effect of disease management programs (DMPs) on symptom severity
- Patient satisfaction and adherence to tx. regimen improved significantly **(only in heterogeneous models)**
- Costs per quality adjusted life range: $9,051-$49,500 (increased cost vs. usual care)

**Neumeyer-Gromen et al, Medical Care 2004**

## General Observations

- Very few long-term studies
- Not in "real life" practices
- Difficult to sort out components of successful interventions
- Few addressed self-management – just patient education
- Need to be applied flexibly
- Can be integrated with the care of other chronic diseases
- Increase costs of care – offset by other savings
- Need components in place for effective
  - **Provider Education**
  - **Patient Education**
  - **Feedback**
  - **Utilisation of guidelines**
  - **Screening**

## Conclusions

- Conclusive evidence that CDM programs for depression
  - **Improve symptom severity**
  - **Increase treatment adherence**
  - **Improve quality of life / functioning**
  - **Increase job tenure**
  - **Increase detection rates**
  - **Improve appropriateness of care**
  - **Increase consumer and patient satisfaction**

# CDM for Depression - What works
# 3. Evidence from Clinical Experiences

## BreakThrough Series reviews: What doesn't work

- Education not effective on its own
- Guidelines not effective on their own
- Screening not effective unless more severe
- Feedback no benefit on its own

## BreakThrough Series reviews: What does work – from successful CC Projects

- Patient registry
- Care co-ordination
- Proactive follow-up
- Diagnostic assessment

**IHI Report 2003**

# Key ingredients of CDM Programs

- **Delivery design**
  - Diagnostic assessments
  - Integration of specialists in primary care
  - Telephone treatment
  - Care co-ordination
  - System navigation
  - Telephone Treatment
  - Tracking after care / pro-active follow-up
- **Self-Management**
  - Goal Setting
  - New approaches to patient education

# Key ingredients of CDM Programs

- **Decision support**
  - Guidelines - if integrated with processes of care
  - Education – if integrated with processes of care
  - Integration of specialists in primary care
- **Information systems**
  - Registries of Individuals at Risk
  - Capacity to monitor care over time
  - Reminders – if integrated with processes of care
- **Organisational support**
  - Organisational leadership
- **Community linkages**

## Implementing these findings in Hamilton

## 2004 Program Priorities

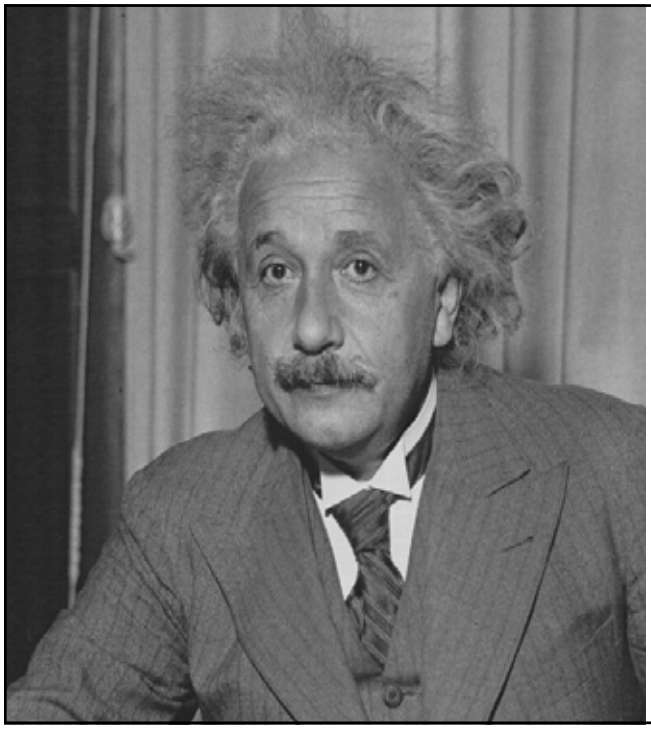
- Develop a Pain Component
- Develop Peer Support
- Review Services Delivered for Individuals with Serious Mental Illness
- Develop Standardized Models of Care
- Develop an Addictions Pilot
- Expand Child Psychiatry

## New program Priorities – Using CCM

- **Delivery design**
  - Telephone Treatment
  - Tracking after care
- **Self-Management**
  - Goal Setting
  - Peer Support
  - New approaches to patient education
- **Decision support**
  - Standardized Care
  - Integrate guidelines with processes of care

## Program Priorities – Using CCM

- **Information systems**
  - Registries of Individuals at Risk
  - Capacity to monitor care over time
- **Organisational support**
  - Strength of program
- **Community linkages**
  - Program Wide Agency Links ie with CCACs



**“Insanity is doing things the way we’ve always done them, and expecting different results”**

## How do we get there

- Clarity on goals amongst program leaders
- Use existing management framework for bottom-up approach
- Buy-in to goals from primary care staff
- Determine priorities
  - Registries
  - Follow-up after care
  - Goal setting
- Work with specialists to implement
- Feedback to PCPs on a regular basis

## Summary

- Conclusive evidence it is effective
- How to integrate in non-research (“real life”) settings
- Enabled us to look at program and system functioning
- Prepared us for an expanded role with other chronic illnesses