

**Utrecht, 10-10-2017**

Jim van Os

**There is no accepted 'system' of mental health care**

*Medicine in Europe* **BMJ**

**Caring for mentally ill people**

Jim van Os, Jan Neeleman

Despite legislation to harmonise mental health practice throughout Europe and convergence in systems of training there remains an extraordinary diversity in psychiatric practice in Europe.

1994

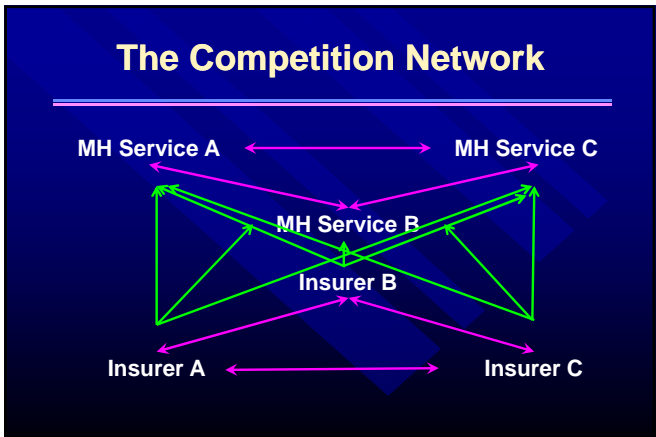
**2006: Waiting Lists in MHS**

**3.5% in MHS**

MHS1 MHS2 MHS3 MHS4

**3.5%**

Create market



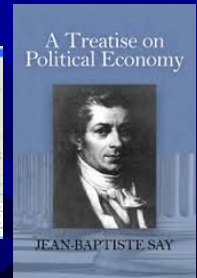
## Epidemiology of Mental Health



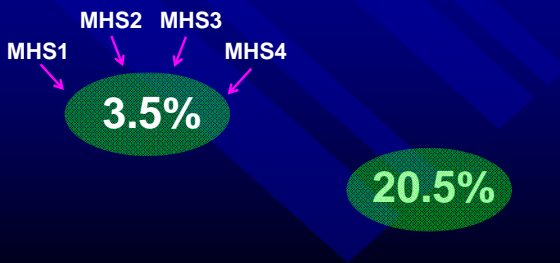
**25%**



## Any Supply Will Create Demand



## Result: Most Profitable Markets



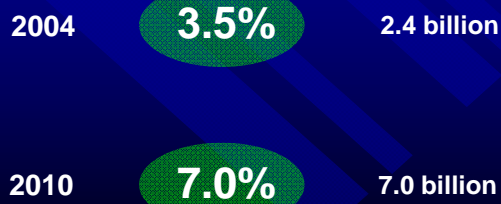
## Economic Perverse Incentives: Baskets



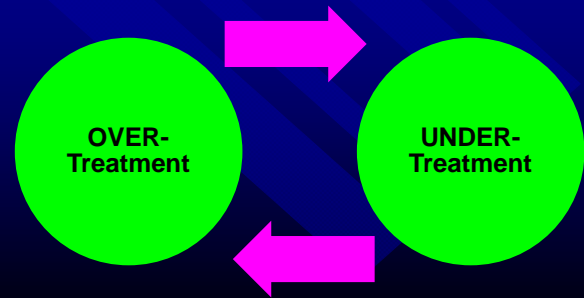
**3.000 to 5.999 Minutes:  
7.850,67 euro.**

**6.000 to 8.999 Minutes:  
12.230,51 euro.**

## 'Market MHS': Explosion in care



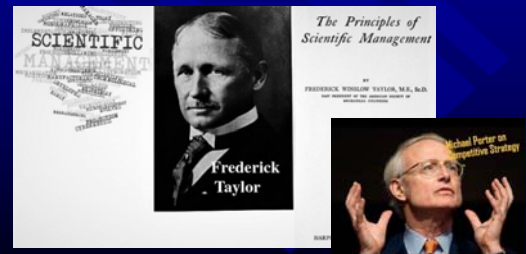
## Over- and Under-treatment



## Reducing Costs: Regulated Market

The screenshot shows a news article from the Dutch Ministry of Health. The headline reads: 'Kosten regeldruk ggz stijgen tot 1 miljard euro' (Costs of mental health care rise to 1 billion euros). The article is dated 20 mei 2014 and has been read 3458 times. The text discusses the impact of cost regulation on mental health care, mentioning that some treatments are not reimbursed while others are. A photograph of a person carrying a large stack of papers is also visible.

## Taylorism and the Harvard Business School



## Taylorism → HBS Value-Based Health Care

**Consumerism perspective:  
Optimization Price/Quality**

**Assumption:  
Health Care Outcome = Product**

**Tools:  
Benchmarking Health Outcomes**

## Dutch Mental Health Benchmarking

1. Centralised, Top-down, 30M/y
2. Symptom-based
3. >50 instruments → pre-post Delta T-score
4. Poor case-mix correction
5. Patients not informed
6. Low quality
7. Not used clinically

## Dutch General Accounting Office:



### ROM: gedragsnorm of dwangmaatregel?

Overwegingen bij het themanummer over routine outcome monitoring

J. VAN OS, E. RAHN, D. DENYS, B.A. SCHOEVERS, A.T.F. BEERMAN, W.F.G. HOOGENDIJK, A.M. VAN HEMERT, P.F.G. HODIAMONT, F. SCHEEPERS, Ph.A.E.G. DELESPAUL, N.F.G. LEENTJENS

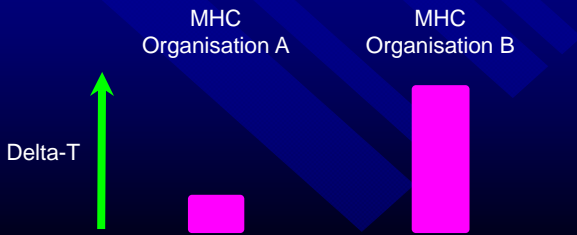
1. Incomplete
2. Unreliable
3. Non-comparable

ACHTERGROND De kosten van de zorg zijn mogelijk meer gegoten dan die van andere sectoren in de gezondheidszorg. In een poging deze kosten te reduceren, proberen beleidsmakers overal waar ze selectieve financiële drempels op te werpen voor mensen die psychische zorg vragen, en onderzoekt een systeem van prestatiebetaling in te zetten op basis van data verkregen met routine outcome monitoring (ROM). Er dreigt ontbreken van historische data die door beleidsmakers zijn verzameld, en zorgverzekers en GGZ Nederland instellingen willen verplichten om data te leveren aan de Stichting Benchmark GGZ (SBG). De SBG moet het mogelijk maken om 'prestatie' te vergelijken tussen instellingen.

## T-scores = comparable?

Scale name	Dutch translation
SDMR-2012	Dutch] Dysthymia - angststoornis
SDMR-ACC	Dutch] Dysthymia - angststoornis
ASDlight	Adult Symptom Index - Light
BPFS	Brief Symptom Inventory
BE	Brief Symptom Inventory
CANM4	Canadian Assessment of Mood & Stress Assessment Schedule
CBCL-4-18	Child Behavior Checklist for Ages 18-18
CBCL-5-18	Child Behavior Checklist for Ages 5-18
CBCL-6-18	Child Behavior Checklist for Ages 6-18
CBCL-11-18	Child Behavior Checklist for Ages 11-18
CBCL-13-18	Child Behavior Checklist for Ages 13-18
CBCL-15-18	Child Behavior Checklist for Ages 15-18
CBCL-17-18	Child Behavior Checklist for Ages 17-18
CBCL-18-18	Child Behavior Checklist for Ages 18-18
CBCL-19-18	Child Behavior Checklist for Ages 19-18
CBCL-20-18	Child Behavior Checklist for Ages 20-18
CBCL-21-18	Child Behavior Checklist for Ages 21-18
CBCL-22-18	Child Behavior Checklist for Ages 22-18
CBCL-23-18	Child Behavior Checklist for Ages 23-18
CBCL-24-18	Child Behavior Checklist for Ages 24-18
CBCL-25-18	Child Behavior Checklist for Ages 25-18
CBCL-26-18	Child Behavior Checklist for Ages 26-18
CBCL-27-18	Child Behavior Checklist for Ages 27-18
CBCL-28-18	Child Behavior Checklist for Ages 28-18
CBCL-29-18	Child Behavior Checklist for Ages 29-18
CBCL-30-18	Child Behavior Checklist for Ages 30-18
CBCL-31-18	Child Behavior Checklist for Ages 31-18
CBCL-32-18	Child Behavior Checklist for Ages 32-18
CBCL-33-18	Child Behavior Checklist for Ages 33-18
CBCL-34-18	Child Behavior Checklist for Ages 34-18
CBCL-35-18	Child Behavior Checklist for Ages 35-18
CBCL-36-18	Child Behavior Checklist for Ages 36-18
CBCL-37-18	Child Behavior Checklist for Ages 37-18
CBCL-38-18	Child Behavior Checklist for Ages 38-18
CBCL-39-18	Child Behavior Checklist for Ages 39-18
CBCL-40-18	Child Behavior Checklist for Ages 40-18
CBCL-41-18	Child Behavior Checklist for Ages 41-18
CBCL-42-18	Child Behavior Checklist for Ages 42-18
CBCL-43-18	Child Behavior Checklist for Ages 43-18
CBCL-44-18	Child Behavior Checklist for Ages 44-18
CBCL-45-18	Child Behavior Checklist for Ages 45-18
CBCL-46-18	Child Behavior Checklist for Ages 46-18
CBCL-47-18	Child Behavior Checklist for Ages 47-18
CBCL-48-18	Child Behavior Checklist for Ages 48-18
CBCL-49-18	Child Behavior Checklist for Ages 49-18
CBCL-50-18	Child Behavior Checklist for Ages 50-18
CBCL-51-18	Child Behavior Checklist for Ages 51-18
CBCL-52-18	Child Behavior Checklist for Ages 52-18
CBCL-53-18	Child Behavior Checklist for Ages 53-18
CBCL-54-18	Child Behavior Checklist for Ages 54-18
CBCL-55-18	Child Behavior Checklist for Ages 55-18
CBCL-56-18	Child Behavior Checklist for Ages 56-18
CBCL-57-18	Child Behavior Checklist for Ages 57-18
CBCL-58-18	Child Behavior Checklist for Ages 58-18
CBCL-59-18	Child Behavior Checklist for Ages 59-18
CBCL-60-18	Child Behavior Checklist for Ages 60-18
CBCL-61-18	Child Behavior Checklist for Ages 61-18
CBCL-62-18	Child Behavior Checklist for Ages 62-18
CBCL-63-18	Child Behavior Checklist for Ages 63-18
CBCL-64-18	Child Behavior Checklist for Ages 64-18
CBCL-65-18	Child Behavior Checklist for Ages 65-18
CBCL-66-18	Child Behavior Checklist for Ages 66-18
CBCL-67-18	Child Behavior Checklist for Ages 67-18
CBCL-68-18	Child Behavior Checklist for Ages 68-18
CBCL-69-18	Child Behavior Checklist for Ages 69-18
CBCL-70-18	Child Behavior Checklist for Ages 70-18
CBCL-71-18	Child Behavior Checklist for Ages 71-18
CBCL-72-18	Child Behavior Checklist for Ages 72-18
CBCL-73-18	Child Behavior Checklist for Ages 73-18
CBCL-74-18	Child Behavior Checklist for Ages 74-18
CBCL-75-18	Child Behavior Checklist for Ages 75-18
CBCL-76-18	Child Behavior Checklist for Ages 76-18
CBCL-77-18	Child Behavior Checklist for Ages 77-18
CBCL-78-18	Child Behavior Checklist for Ages 78-18
CBCL-79-18	Child Behavior Checklist for Ages 79-18
CBCL-80-18	Child Behavior Checklist for Ages 80-18
CBCL-81-18	Child Behavior Checklist for Ages 81-18
CBCL-82-18	Child Behavior Checklist for Ages 82-18
CBCL-83-18	Child Behavior Checklist for Ages 83-18
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CBCL-86-18	Child Behavior Checklist for Ages 86-18
CBCL-87-18	Child Behavior Checklist for Ages 87-18
CBCL-88-18	Child Behavior Checklist for Ages 88-18
CBCL-89-18	Child Behavior Checklist for Ages 89-18
CBCL-90-18	Child Behavior Checklist for Ages 90-18
CBCL-91-18	Child Behavior Checklist for Ages 91-18
CBCL-92-18	Child Behavior Checklist for Ages 92-18
CBCL-93-18	Child Behavior Checklist for Ages 93-18
CBCL-94-18	Child Behavior Checklist for Ages 94-18
CBCL-95-18	Child Behavior Checklist for Ages 95-18
CBCL-96-18	Child Behavior Checklist for Ages 96-18
CBCL-97-18	Child Behavior Checklist for Ages 97-18
CBCL-98-18	Child Behavior Checklist for Ages 98-18
CBCL-99-18	Child Behavior Checklist for Ages 99-18
CBCL-100-18	Child Behavior Checklist for Ages 100-18

### Real Case: 'Ambulatory Care' Comparison

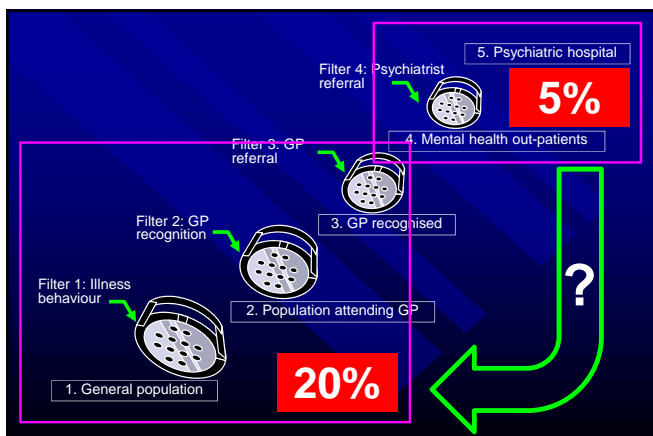


### VBHC Fallacy: Public Health Perspective

USA: Spends more on Health than any other country

Health Care Access Inequalities

USA population: poor health parameters



### VBHC Fallacy: Health = Meaningful Life

WHO, 1948  
World Health Organization

Huber, 2011  
BMJ

Symptom Reduction

'Can do my thing'



## Finding Truth in Apparent Opposites

SICK  
CARE



HEALTH  
CARE

## Impact van zorgsysteem context

### *Sluipend Kwaliteitsverlies in de GGZ*

Over de gevolgen van  
Diagnose Behandeling Combinaties in de praktijk

**Nienke van Sambeek**

Nienke van Sambeek, Evelien Tonkens & Christian Bröer, 2011

## Analysis Dutch Mental Health System

Person with problems



DBC: Expert diagnosis –  
will provide 'cure'

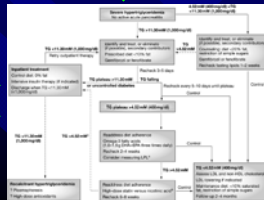
Disempowerment

De-individualisation

Delta-T

Quantification

DBC  
minutes



Van Sambeek et al, 2011

## How to Innovate?

Everybody wants to Innovate,  
Nobody wants to change

Innovation is the process  
where others have to change!

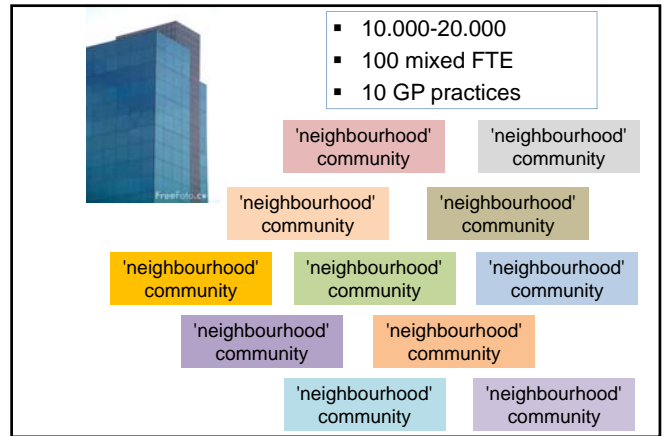
DIAGNOSIS UITGEVERS

[www.samenbeter.org](http://www.samenbeter.org)

**GOEDE GGZ!**  
Nieuwe concepten, aangepaste taal en betere organisatie

- Redistribution resources
- Small scale, integrated
- Start with motivated
- No blueprint – broad challenges
- Show it is possible

Philippe Delenspaal  
Michael Mita  
Frank Schalken  
Wilma Boevink  
Jim van Os



## Alternative Quality Assessment

**Population perspective:  
Optimization Price/Health**

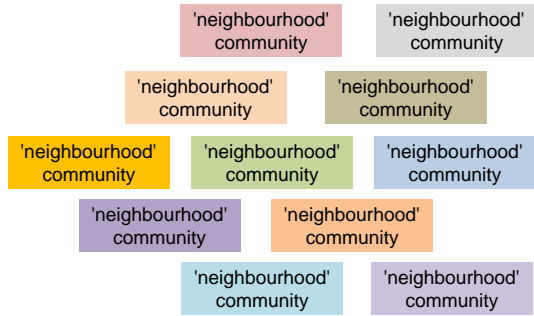
**Health Care Outcome =  
Population Health**

**Tools:  
Benchmarking small areas**

## Impact Population Mental Health Parameters

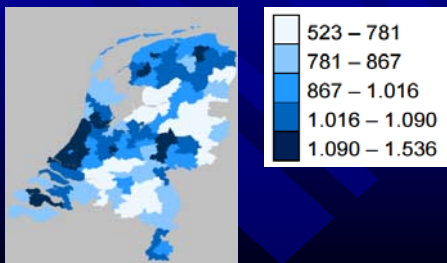
1. Work
2. Living independently
3. Disability benefit / Social support
4. Self-harm, Suicide and premature death
5. Psychotropics use
6. Mental health care consumption
7. Somatic health care consumption
8. Crisis care consumption
9. Involuntary admissions

## Benchmarking SMA regions



A	B	C	D	E	F	G	H	I
GESLACHT	LEEFSTUURPOSTCODE_3	AANTAL	...	...	...	...	...	KOSTEN
M	0	302	...	...	...	...	...	1360.17
M	0	303	...	...	...	...	...	3039.63
M	0	305	...	...	...	...	...	18776.34
M	0	306	...	...	...	...	...	21194.52
M	0	307	...	...	...	...	...	12292.17
M	0	308	...	...	...	...	...	5484.17
M	0	309	...	...	...	...	...	9844.95
M	0	310	...	...	...	...	...	9054.44
M	0	311	...	...	...	...	...	2395.76
M	0	312	...	...	...	...	...	788.18
M	0	313	...	...	...	...	...	2176.44
M	0	314	...	...	...	...	...	991.04
M	0	315	...	...	...	...	...	215.19
M	0	316	...	...	...	...	...	515.01
M	0	317	...	...	...	...	...	506.18
M	0	318	...	...	...	...	...	7551.82
M	0	319	...	...	...	...	...	575.47
M	0	321	...	...	...	...	...	4970.72
M	0	322	...	...	...	...	...	4051.61
M	0	323	...	...	...	...	...	424.19
M	0	324	...	...	...	...	...	998.47
M	0	325	...	...	...	...	...	413.93
M	0	326	...	...	...	...	...	402.48
M	0	327	...	...	...	...	...	3451.32
M	0	331	...	...	...	...	...	5884.02
M	0	332	...	...	...	...	...	6762.74
M	0	333	...	...	...	...	...	4154.48
M	0	339	...	...	...	...	...	2094.96
M	0	336	...	...	...	...	...	1251.15
M	0	338	...	...	...	...	...	1865.87
M	0	339	...	...	...	...	...	1784.88
M	0	340	...	...	...	...	...	2011.18
M	0	341	...	...	...	...	...	1770.10
M	0	342	...	...	...	...	...	2912.14
M	0	343	...	...	...	...	...	1749.81

## Practice variation: Common Mental Disorder DBC



```

. xtreg kost_ggz year,i(code3)

Random-effects GLS regression           Number of obs   =   272,616
Group variable: code3                  Number of groups =    791

|_____+_____|               Wald chi2(1)    =   336.66
corr(u_i, X) = 0 (assumed)         Prob > chi2     =   0.0000

-----+-----
kost_ggz |      Coef.   Std. Err.   z    P>|z|    [95% Conf. Interval]
-----+-----
year     | -2668.406   145.4299   -18.35  0.000   -2953.444   -2383.369
_cons   |  5397534   292970.2    18.42  0.000   4823323    5971745

sigma_u  | 27396.908
sigma_e  | 37965.000
rho      | .34242592 (fraction of variance due to u_i)
  
```




```

. xtreg kost_ggz age sex Totaal_m Totaal_p Niet_west Wester Eenpers Gemid 1.year 1.urban,1(code3)
Random-effects GLS regression           Number of obs   =   272,616
Group variable: code3                  Number of groups  =     791
-----+-----
      kost_ggz |      Coef.   Std. Err.      z    P>|z|    [95% Conf. Interval]
-----+-----
      age |    -129.5128   2.806472   -46.15   0.000   -135.0134   -124.0122
      sex |     1745.93   144.8593    12.05   0.000   1462.011   2029.849
Totaal_mannen_en_vrouwen |     .284802   .3564073     0.84   0.398   - .3752642   .9434201
Totaal_particuliere_huishoudens |     1.341105   1.028496     1.30   0.192   - .6747111   3.35692
Niet_westerse_allochtoon |    -1298508   .0666532    -1.95   0.051   - .0007877   .2604887
Westerse_allochtoon |    -477215   .2502586    -1.91   0.057   - .9677128   .0132828
Eenpersoonshuishoudens |     1.456665   .7599279     1.92   0.055   - .032766   2.946097
Gemiddelde_huishoudensgrootte |    -4236.802   1426.421    -2.97   0.003   -7032.536   -1441.067
-----+-----
      year |
      2015 |    -2659.205   144.8393    -18.36   0.000   -2943.085   -2375.325
      urban |
      2 |    -1757.276   692.159     -2.54   0.011   -3113.883   -400.6697
      3 |    -1722.883   711.3059    -2.42   0.015   -3117.017   -328.7489
      4 |    -514.7674   736.9816    -0.70   0.485   -1959.225   929.6901
      5 |     410.8066   860.221     0.48   0.633   -1275.196   2096.809
-----+-----
      _cons |    13318.38   3491.113     3.81   0.000   6475.928   20160.84
-----+-----
sigma_u  |     5696.1661
sigma_e  |     39000.417
rho      |    .02219301 (fraction of variance due to u_1)

```

## What is Science?



*The important thing in science is not so much to obtain new facts as to discover new ways of thinking about them.*

(William Lawrence Bragg)

