

# Measuring Self Sufficiency

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# Overview



Context

Development of the Self Sufficiency Matrix (SSM)

The Dutch SSM (SSM-D)

Applications

Questions & discussion

## Introduction



Aims of local policy:

Self sufficiency

Participation

Inclusion

(Fulfilment)

(Happiness)

## Policies for the elderly in Rotterdam

Basic principle: maintain self management for as long as possible (housing, health care, personal care)



There are 3 segments in the system:

1. Primary health care (GP's) & cure (hospitals) are a regulated market: insurance system
2. Long term care (home care, institutions for the elderly) is financed by national government, taxes
3. Welfare, participation, well being of the elderly (and housekeeping support) are local government policies

## Context



Pressure from funding bodies to:

- Improving services
- Focus on results
- Deliver less costly
- and more accountability demands

USA: Performance and Result Act (1993)

## Development SSM



Pearce et al. (1996): Economic self sufficiency standard

The Snohomish county self sufficiency taskforce (2004): First SSM based on ROMA outcomes standards

Arizona and Utah (a.o.) (2006): State-specific adaptations of SSM

- Adaptations of the SSM vary in number of domains.
- Number of levels of self sufficiency and formulation of domain-specific criteria remains consistent

Public Health Service Amsterdam (2010): First Dutch adaptation of SSM (SSM-D)

- The SSM-D was developed with feedback and input from professionals, policymakers, and researchers from the field of PMHC

## Measuring Self Sufficiency



- Self Sufficiency is the realization of an acceptable level of functioning either by oneself or by adequately organizing care
- Comprehensive and reliable screening
- Deal with interlinked problems
- Multiple domains

## The SSM (Dutch version)



The Dutch version of the Self Sufficiency Matrix (SSM-D) distinguishes 5 levels of self sufficiency (rows)

Acute problem, Not, Barely, Adequately, Completely

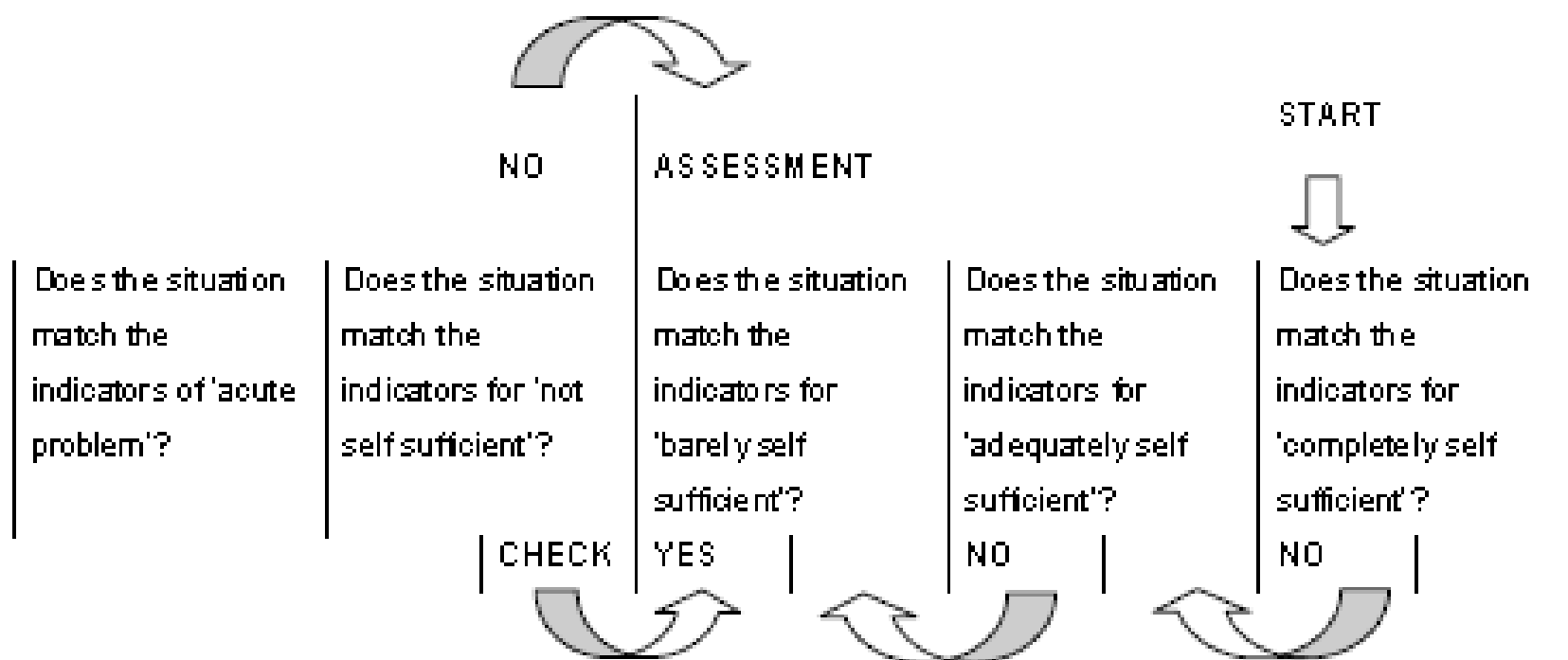
The SSM-D assesses a persons' level of self sufficiency on 11 domains (columns)

Income, Day-time activities, Housing, Domestic relations, Mental health, Physical health, Addiction, Daily life skills, Social network, Community participation, Judiciary

For each level of self sufficiency, domain-specific criteria are specified (cells)



| DOMAIN   | 1 – acute problems                    | 2 – not self-sufficient   | 3 – barely self-sufficient   | 4 – adequately self-sufficient   | 5 – completely self-sufficient                                      |
|----------|---------------------------------------|---|--|--|---|
| Finances | No income. High and increasing debts. | Inadequate income and/or spontaneous or inappropriate spending. Increasing debts. | Can meet basic needs with income and/or appropriate spending. If there are debts, they are at least stable and/or controlled by a third party. | Meets basic needs without receiving social security benefits. Manages possible debts without assistance and they are decreasing. | Income is ample, well managed. Has the ability to save with income. |



# Finances



- The level of income in relation to the expenditure
- The source of income
- The management and dynamics of (possible) debts

## Day-time activities



- Having a job
- Attending a trajectory that leads to work
- Education
- Causing nuisance

# Housing



- Quality: safe and sufficient
- Stability
- Autonomy

## Domestic relations



- Support
- Negative influences (violence, abuse, neglect)

## Mental health



- Mental problems
- Treatment
- Dealing with treatment

# Physical Health



- Physical problems
- Treatment
- Dealing with treatment

# Addiction



- Interference in daily functioning
- Treatment
- Dealing with treatment



## Activities of daily life



- Self care
- Basic tasks
- Complex activities

## Social network



- Support
- Quality of support
- Negative influences

## Community participation



- Participation in structured community activities
- Promoting or impeding factors

## Judiciary



- Contact with police
- Pending police cases
- Criminal records

# APPLICATIONS



- CASE MANAGEMENT TOOL document progress towards self-sufficiency over time at specific intervention points
- MANAGEMENT TOOL what type of services offered to clients is working
- MEASUREMENT TOOL articulate funding priorities and report results to funders
- COMMUNICATION TOOL sharing information, illustrating the strengths and weaknesses of the community and what is required to improve opportunities

# Application: Decision support for access to public mental health



| <i>Research group characteristics</i> (N=612) |                       | Professional decision |                  |
|---|-----------------------|-----------------------|------------------|
|   |                       | PMHC (N=251)          | Referral (N=361) |
| Mean age (years, sd)                          |                       | 39,5 (10,2)           | 38,7 (10,7)      |
| Sex (% male)                                  |                       | 87%                   | 84%              |
| SSM-D <3 (%)                                  | Income                | 86%                   | 85%              |
|   | Day-time activities * | 88%                   | 79%              |
|   | Housing *             | 93%                   | 68%              |
|   | Domestic relations *  | 24%                   | 9%               |
|   | Mental health *       | 24%                   | 3%               |
|   | Physical health *     | 10%                   | 3%               |
|   | Addiction *           | 36%                   | 2%               |
|   | Daily life skills *   | 10%                   | 1%               |
|   | Social network *      | 52%                   | 14%              |
|   | Comm. part. *         | 42%                   | 14%              |
|   | Judiciary *           | 26%                   | 7%               |



## Purpose

Transparency in the professional decision to grant/deny access to PMHC at the Central Access Point in Amsterdam

## Method

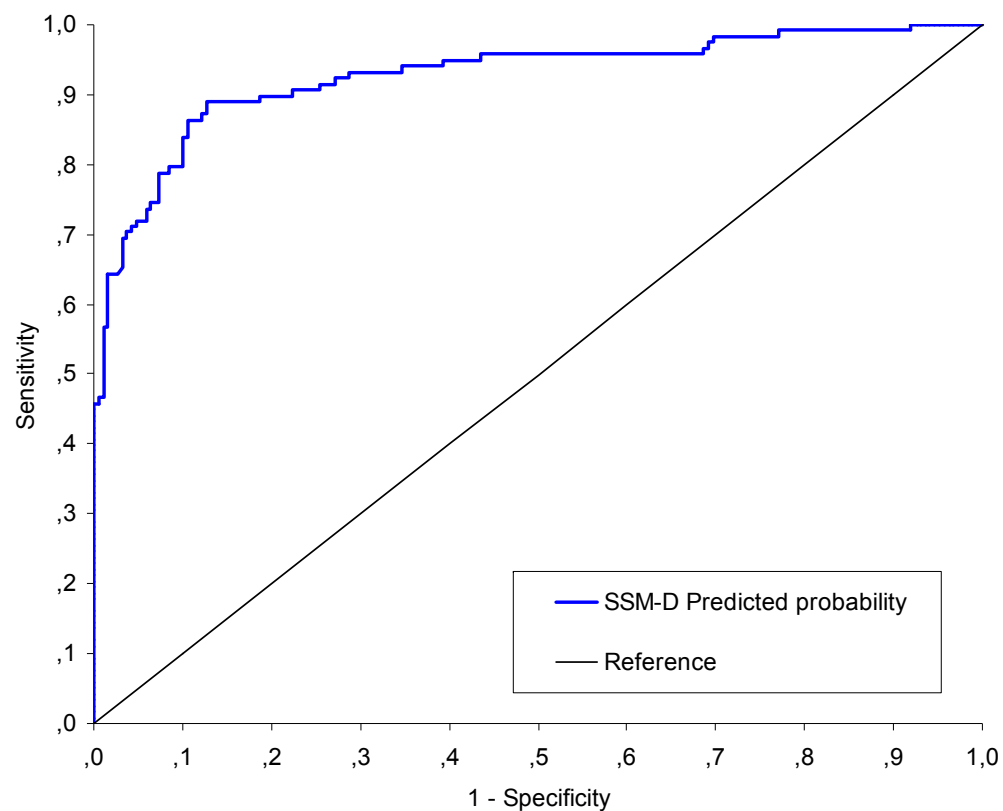
Screeners at the CAP perform an interview, decide on the access to PMHC, and score the SSM-D

SSM-D predictors of the professional decision are analyzed with logistic regression modeling in one half of the research group (N1)

Cut-off points with optimal sensitivity and specificity are analyzed with ROC-curves of decisions in the other half of the research group (N2)



| Included                  | B (SE) Weights     |
|---------------------------|--------------------|
| <b>Constant</b>           | <b>14.45</b>       |
| <b>Income</b>             | <b>-.13 (.20)</b>  |
| <b>Day-time act.</b>      | <b>-.50 (.27)</b>  |
| <b>Housing</b>            | <b>-.65 (.30)</b>  |
| <b>Domestic relations</b> | <b>-.06 (.18)</b>  |
| <b>Mental health</b>      | <b>-1.02 (.21)</b> |
| <b>Physical health</b>    | <b>-.06 (.19)</b>  |
| <b>Addiction</b>          | <b>-.99 (.18)</b>  |
| <b>Daily life skills</b>  | <b>-.14 (.25)</b>  |
| <b>Social network</b>     | <b>-.37 (.21)</b>  |
| <b>Community part.</b>    | <b>-.31 (.26)</b>  |
| <b>Judiciary</b>          | <b>-.43 (.17)</b>  |







*Agreement between professional and SSM-D  
(N2=306)*

Professional decision

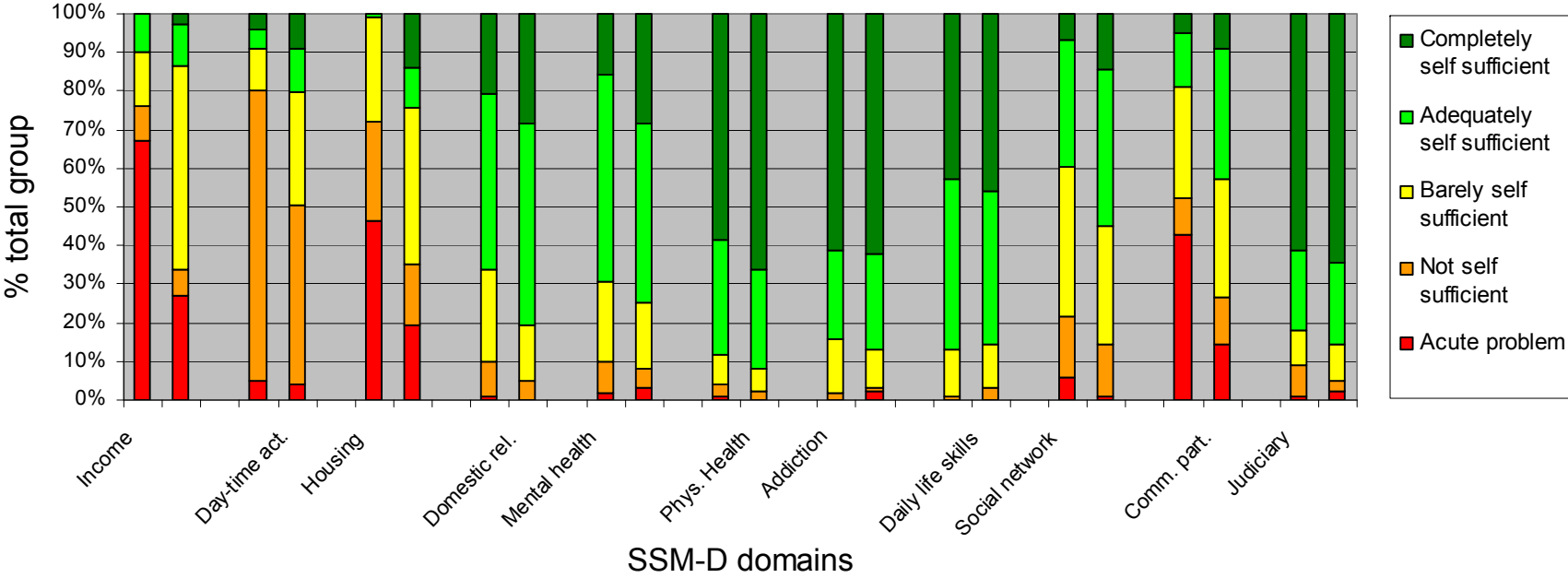
|       |                    | PMHC | Referral |
|-------|--------------------|------|----------|
| SSM-D | Certainly PMHC     | 66   | 2        |
|       | Probably PMHC      | 28   | 15       |
|       | Probably Referral  | 13   | 30       |
|       | Certainly Referral | 11   | 141      |

The DST based on weighted SSM-D domains is accurate and useful to promote transparency of the decision to allocate clients to PMHC

# Application: Tracking client progress



SSM-D scores at intake (T0) and last contact (T1)



## Policy



Definition of vulnerable elderly:

Score 1 or 2 on at least two primary domains:

Primary domains:

Finances, Housing, Addiction, Activities daily life, Social Network

Other domains are secondary

We speak of stability when they score at least 3 on all primary domains



Combine different parameters:

Stability on SSM

Length of residential stay

Amount of clients

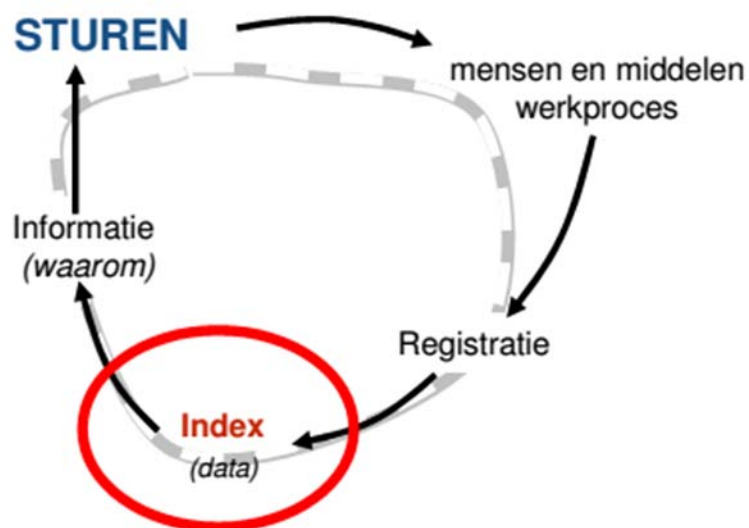
Percentage of outpatient care

Index by multiplying

## Application: Monitoring and index



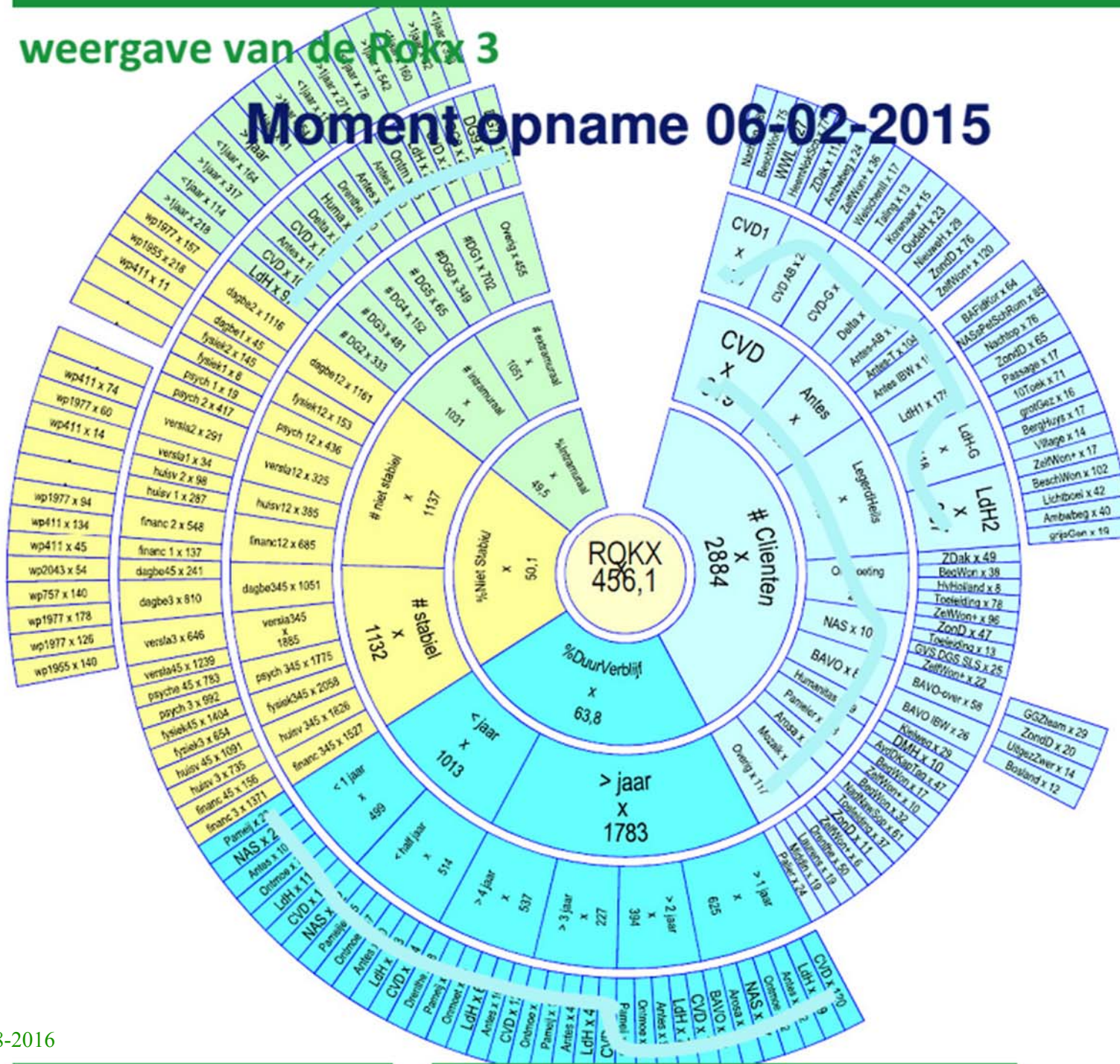
- (1) **Duur verblijf:** % cliënten langer dan een jaar in verblijf
- (2) **aantal cliënten**
- (3) **ZRM (stabiliteit)** % cliënten met niet-stabiele ZRM
- (4) **Extramuraal?** % cliënten in een intramuraal verblijf



**Berekening van de index:**  
Vermenigvuldiging van deze vier

# weergave van de Rokx 3

## Moment opname 06-02-2015



## Effect of the use of the SSM-D



Integrated approach

Broadly accepted in the Netherlands

Feedback is important

Research is needed

Training and a thorough implementation is important

## Psychometric properties



### Internal consistency

*N=2686 (Young adults office Rotterdam & Central Access PMHC Amsterdam)*

One construct: self sufficiency

No unnecessary domains

### Inter-rater reliability

*N=20 screened by 2 SW's / 2 series of N=16 and N=20 pros rated 3 fictitious cases*

High correlations between ratings by different pros, exact agreement and kappa coefficient are satisfactory  
Access to information is of primary importance for reliability

### Construct validity

*N=81 SSM-D & HoNOS (ACT-Youth) / N=86 SSM-D & CANSAS (SMI study)*

Strong correlations of overall scores SSM-D/HoNOS and SSM-D/CANSAS

Strong correlations of various domains with HoNOS and CANSAS subscales

Fassaert et al., submitted TSG and Community Mental Health Journal



## maintenance and development



MijnZRM (MYSSM-D) is a clientversion (in dutch). This version is structured by questions and calibrated on the SSM-D

Revision during 2016

Extra domains for people that are not expected to work

Small improvements

## Questions?



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