

# High Tech High Touch High Trust

## Evidence Based E-Mental Health in the Netherlands

Heleen Riper

Filip Smit, Jeannet Kramer, Barbara Conijn, Jorne Grolleman  
Innovation Centre for Mental Health & Technology

I.COM

Trimbos Institute

[www.icom.trimbos.nl](http://www.icom.trimbos.nl)

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# State of the Art Study on E-mental health High Tech, High Touch, High Trust (2007)

aim

## Aim

- Provide an action plan for the further development of an evidence based e-mental health programme for:
  - policy makers, service providers, insurance providers, clients & researchers

## How?

- E-mental health services available
- Effectiveness of e-mental health
- Problems and future challenges

# Eysenbach 10 'E's

- **E**vidence based
- **E**fficiency
- **E**mpowerment
- **E**nhancing Quality
- **E**ducation: e-learning
- **E**xtending
- **E**thics
- **E**quity
- **E**asy to use
- **E**ntertaining

How well are our mental health services prepared for the consequences of the digital revolution?



A person wearing a light blue t-shirt, dark blue jeans, and sandals stands on a dirt path. The background features a field of tall grass and a blue sky with scattered white clouds. A utility pole is visible on the left side of the path.

10 million people in the Netherlands look out for health related information on Internet!

1 out of 2 is aware of e-mental health service delivery

1 out of 4 considers to make use of emh service delivery

number 1 threshold: social network

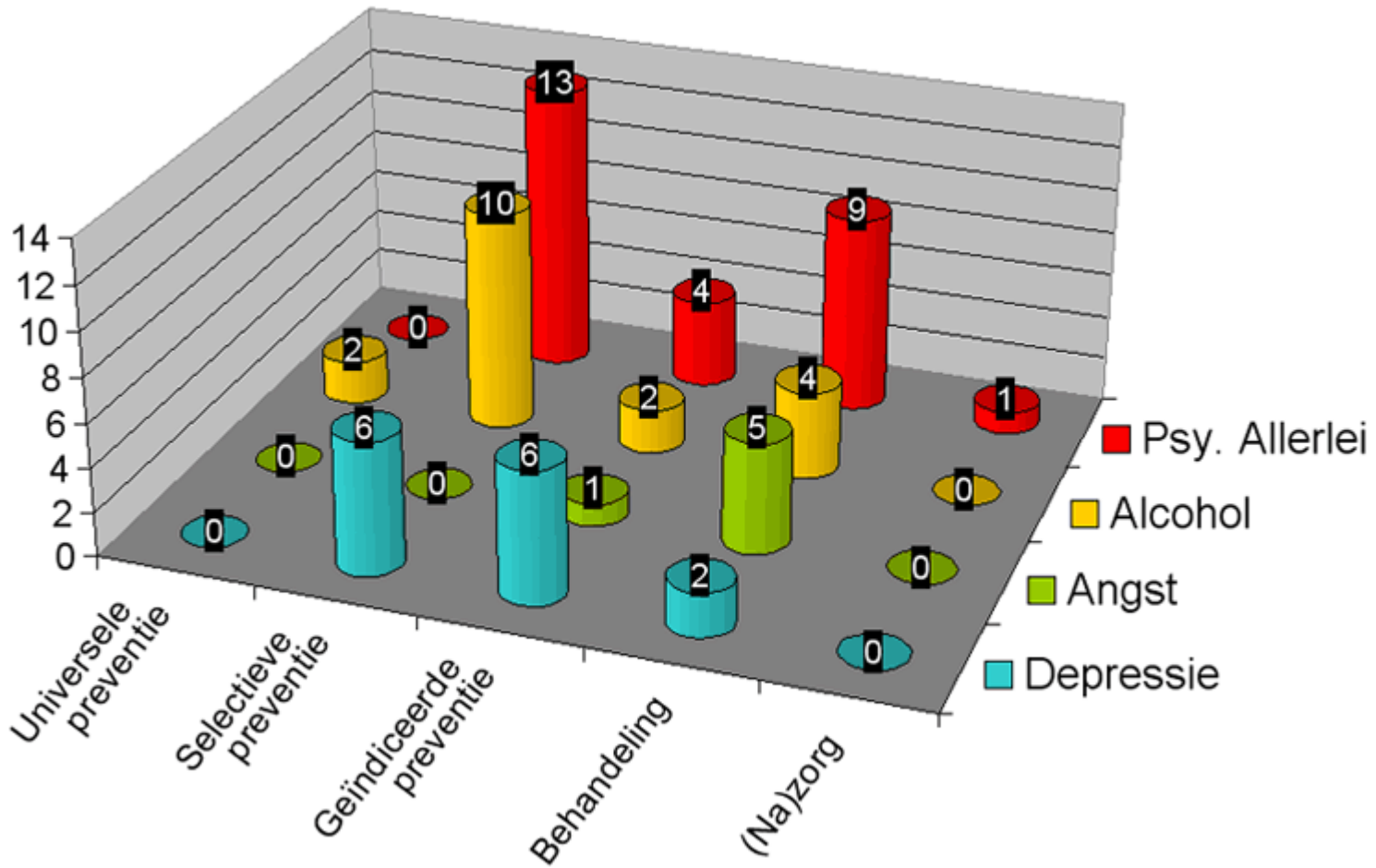
A photograph of a man and a woman in profile, facing each other and shouting. The woman on the left has long dark hair and is wearing a dark grey trench coat. The man on the right has dark, wavy hair and is wearing a bright green long-sleeved shirt with orange and red stripes on the sleeves. They are standing in front of a blue, textured wall with vertical lines. The text is overlaid in the center of the image.

**Times Persons of  
the year 2006 were we!**

**Web 2.0: bringing together  
small contributions of  
millions of people.**

**Dutch treat: E-Mental Health  
3.0 by the year 2010!**

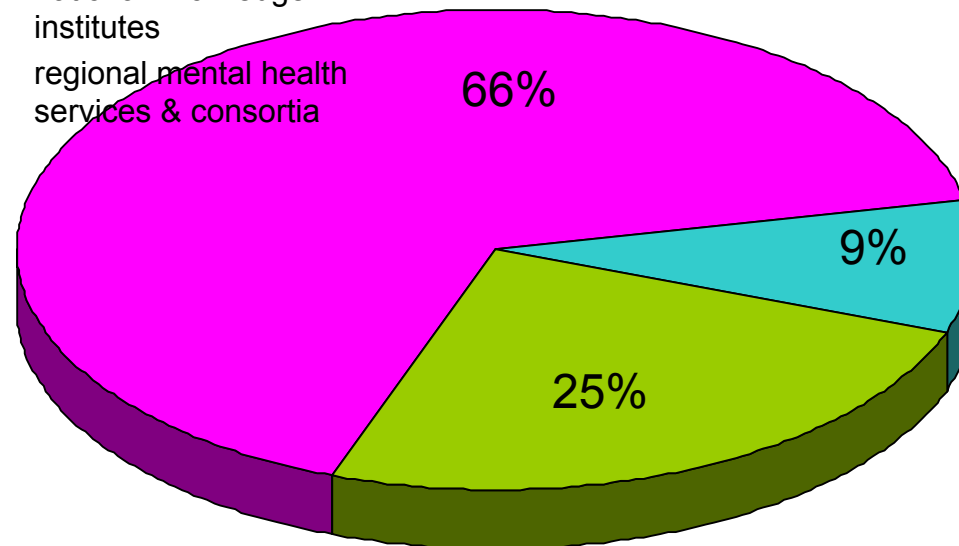
# number of interventions (N=65), disorder & type of treatment in the Netherlands



# emh interventions & service providers

e-mental health  
in the Netherlands

- national knowledge institutes
- regional mental health services & consortia



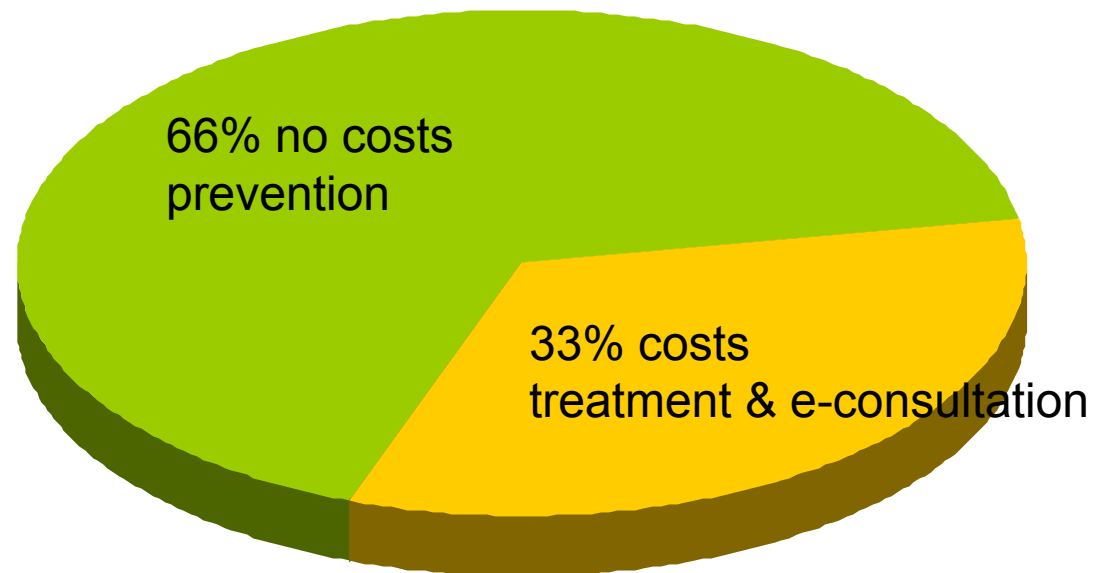
National NGO's

- Individual service providers
- health insurance companies
- 'new players on the market'



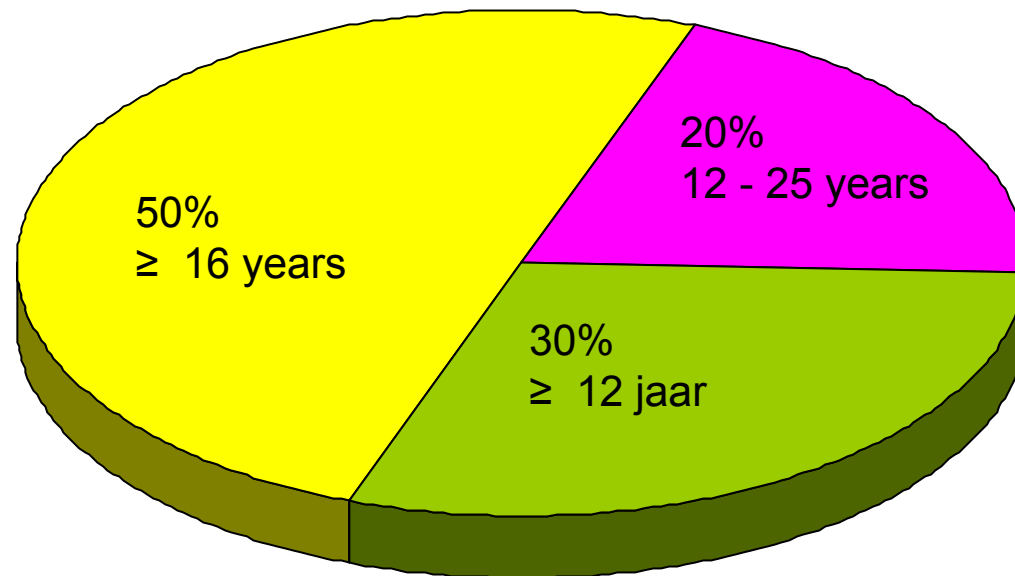
## costs involved for patients

e-mental health  
in the Netherlands



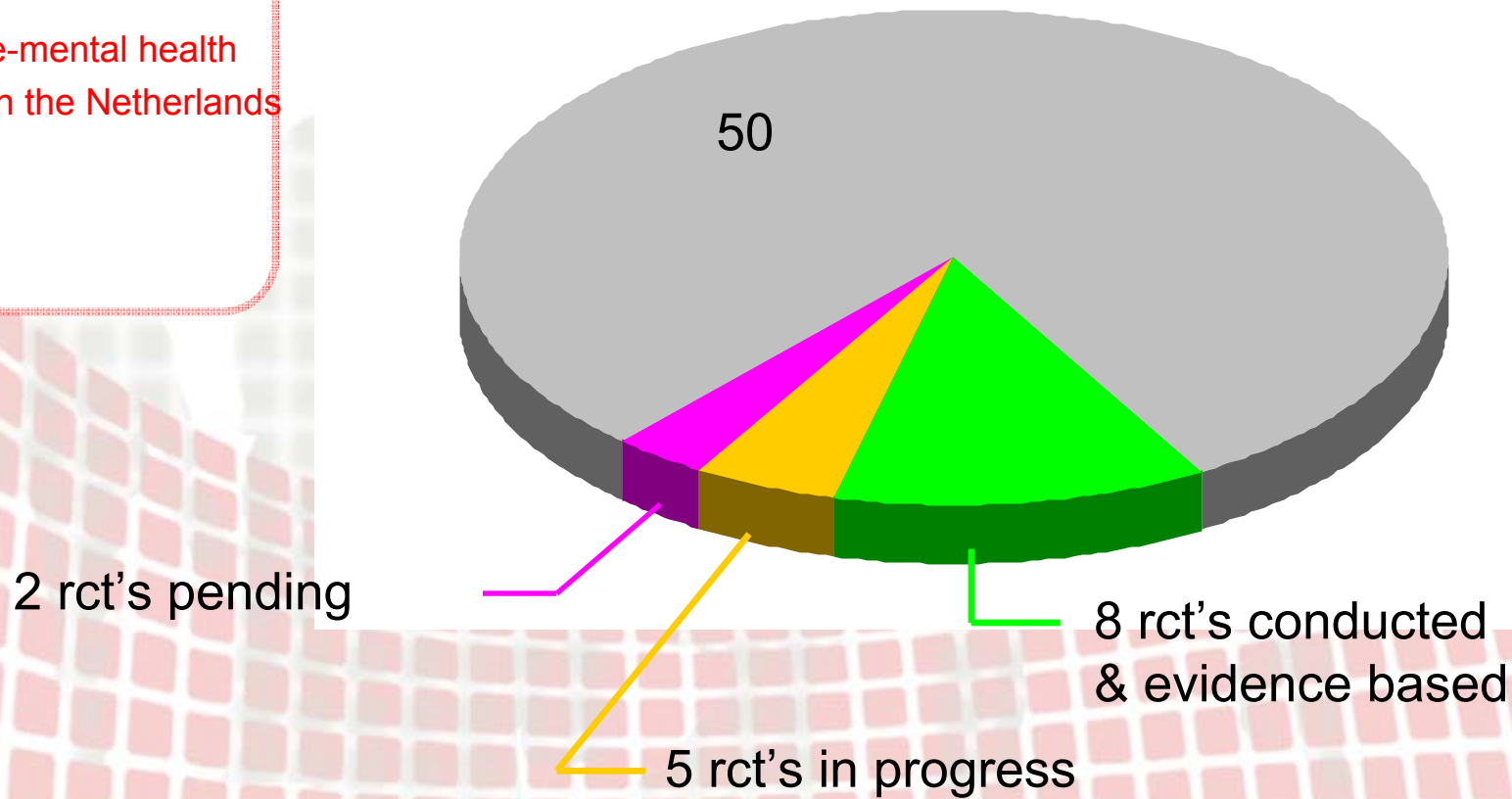
## age of target groups

e-mental health  
in the Netherlands



# number of rct's & number of interventions (N= 65)

e-mental health  
in the Netherlands



research

- What is the effectiveness of e-mental health interventions for depression, anxiety and problematic alcohol use?
- Is e-mental health effective on the level of the population (DALY's)?

# Effectiveness e-mental health interventions for depression

Why?  
CYL  
Effectiveness  
Next Step

Id	Reference	N	D *	95% CI	
1	Clarke (2002)	299	0.00	-0.23	0.23
2	Patten (2003)	786	0.00	-0.14	0.14
3	Christensen (2004)	525	0.37	0.20	0.54
4	Clarke (2005)	255	0.31	0.06	0.56
5	Anderson (2005)	117	0.88	0.50	1.26
6	Van Straten (subm)	213	0.61	0.34	0.88
7	Spek (2007)	301	0.55	0.27	0.83
8	Lange (in prep)	46	1.07	0.45	1.69
Early treatment	Studies 3, 4, 5, 6, 8 <sup>a</sup>	1183	0.66	0.54	0.78
Prevention	Study 7 <sup>b</sup>	202	0.55	0.27	0.83

a without study 1; b without study 2

Riper, Smit et al 2007

## effectiveness e-mental health interventions anxiety

research

Id	Reference	Diagnose	N	d *	95% CI	
1	Calbring (2001)	Panic	41	0.99	0.33	1.64
2	Calbring (2003)	Panic	22	0.33	-0.51	1.17
3	Klein (2001)	Panic	23	0.40	-0.43	1.23
4	Klein (2006)	Panic	37	1.52	0.79	2.25
5	Carlbring (2006b)	Panic	60	1.14	0.59	1.69
6	Marks (2004)	Panic	36	1.82	1.04	2.60
7	Richards (2006)	Panic	21	0.77	-0.12	1.66
8	Andersson (2006)	Soc phobia	64	0.77	0.26	1.28
9	Carlbring (2006a)	Soc phobia	57	1.08	0.52	1.64
10	Lange (2001)	PTSD	30	0.57	-0.16	1.30
11	Lange (2003)	PTSD	101	1.17	0.75	1.59
12	Hirai (2005)	PTSD	27	0.81	0.03	1.59
13	Van Straten (2007)	Anxiety	213	0.51	0.24	0.78

A	All studies	All anxiety	698	1.02	0.86	1.18
B	Studies 1 - 7	Panic	236	1.10	0.83	1.37
C	Studies 8, 9	Soc phobia	121	1.00	0.62	1.38
D	Studies 10 - 12	PTSD	158	0.81	0.49	1.14

## effectiveness of e-mental health on the level of the population

research

- depression: yes
- anxiety: potentially
- problem drinking: more rct's needed

# Challenges

vraagstelling  
aanpak  
praktijk  
onderzoek  
**Knelpunten  
&  
Kansen**

1. Develop instruments to assess, evaluate and reimburse e-mental health service delivery
2. Integrate e-mental health service delivery & regular service delivery.
3. Develop an integrated road map for research & development
4. Support national & international knowledge & experience exchange
5. Learn from experience from abroad



# Conclusion

research

- Results are very positive for depression and anxiety both for prevention and treatment!
- But needed:
- economic evaluation research
  - comparison between ftf and e-mental health treatment
  - required level of therapeutic assistance with regard to outcome variables & target group characteristics
  - predictor analysis: which target group benefits from what type of intervention?
  - effectiveness of interventions for youth
  - (cost) effectiveness trial replication
  - stepped care & disease management evaluations

# Third Wave, Trust

## 10 R's

- **R**oad Map for evidence based implementation and dissemination
- **R**each: participation rates & representativeness: from trial to practice & from trial to target group
- **R**isk assessment
- **R**eplicability
- **R**obustness
- **R**eturn on investment (social & financial)/reimbursement
- **R**ecruitment
- **R**eferral
- **R**eadiness
- **R**eality
- **R**iper et al 2007