International Society for Research on Internet Interventions
6th Scientific Meeting
16 – 18 May 2013, Chicago, Illinois, USA

Clinical Outcomes and Economic Evaluation of Internet-based Alcohol Interventions:

A Pragmatic Randomized Trial

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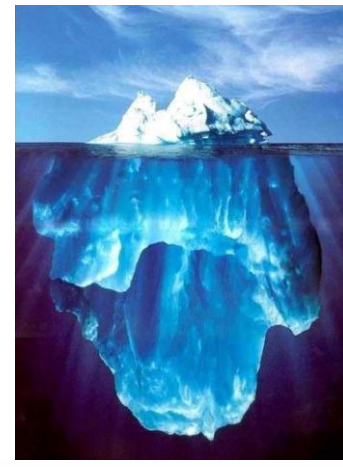
Alcohol in the Netherlands

- 16.7 million inhabitants (1)
- 730.000(2) alcohol abuse + dep.
- In treatment: 36.000 (=5%)(3)
  - Mainly out-patient treatment
- Treatment gap!
- E-mental health to reduce gap?
  - Effective?
  - Cost-effective?

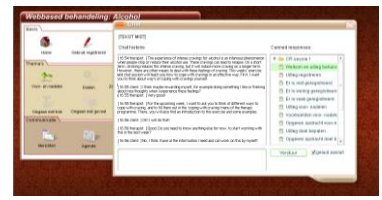


(1) Statistics Netherlands / CBS (2012)
(2) Last year, data from NEMESIS-2 prevalence study (2011)
(3) LADIS: National Alcohol and Drugs Information System (2011)

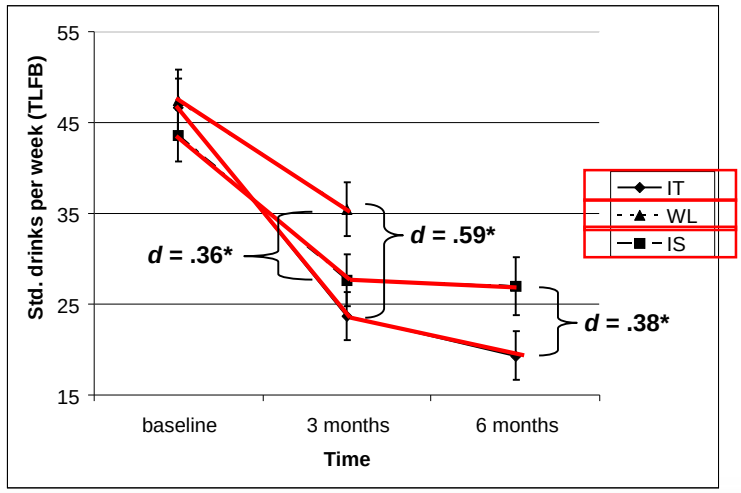
Alcohol interventions in this RCT

- Internet Self-help (IS)
  - CBT/MI based
  - Non-counsellor involved
  - Unrestricted access for everyone

- Internet Therapy (IT)
  - Counsellor-guided
  - 7 one-on-one chats in 10 weeks



Clinical results: Alcohol use reduction



Blankers et al (2011) J Consult Clin Psychol 79(3):330-41.

Costs - effects comparison at 6 months

Internet Therapy (IT)

VERSUS

Internet Self-help (IS)

Cost-effectiveness Analysis

Societal perspective

Effects

QALYs

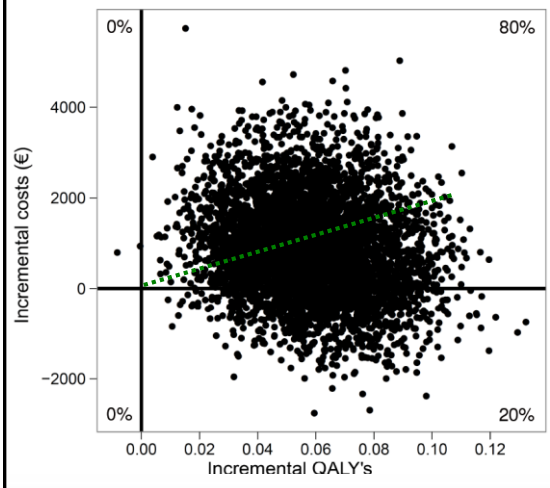
Quality Adjusted Life Years
QALY = life year in perfect health
Based on quality of life scale EQ-5D

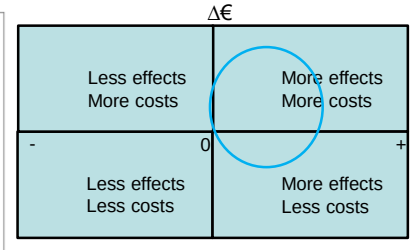
Costs

Direct medical costs
intervention
Direct non-medical costs
out-of-pocket patient

Indirect costs
productivity patient
additional healthcare
additional societal

Cost-effectiveness Analysis IT vs IS





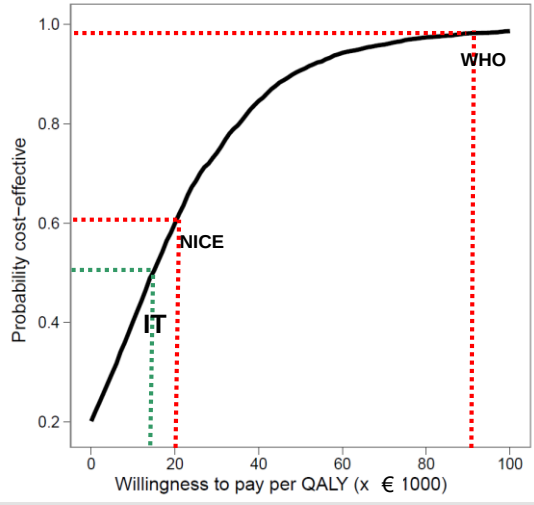
80% more effects, more costs
20% more effects, less costs

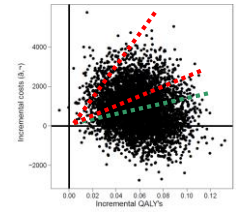
Median cost /QALY IT vs IS
€ 14k per QALY

Blankers et al (2012) J Med Internet Res 14(5):e134.

Cost-effectiveness Analysis IT vs IS

Cost-Effectiveness Acceptability Curve



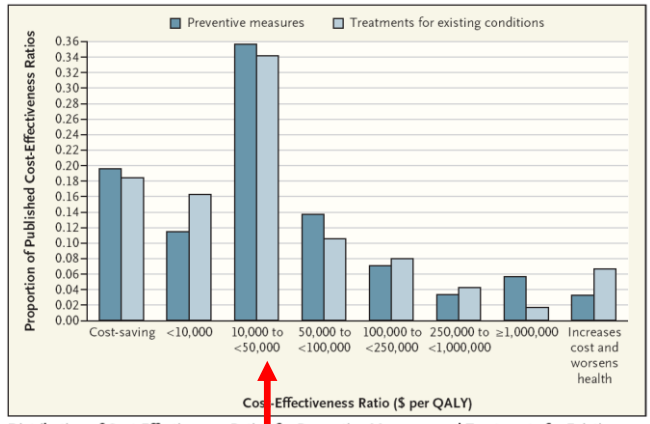


Median cost /QALY IT vs IS
€ 14k per QALY

NICE (1999)
WTP / QALY: € 22-34k

WHO (2002)
3x GDP per capita NL: € 90k

Cost-effectiveness Analysis IT vs IS



Distribution of Cost-Effectiveness Ratios for Preventive Measures and Treatments for Existing Conditions.

Data are from the Tufts–New England Medical Center Cost-Effectiveness Registry. QALY denotes quality-adjusted life-year.

Cohen 2008 NEJM

Does Preventive Care Save Money? Health Economics and the Presidential Candidates

Joshua T. Cohen, Ph.D., Peter J. Neumann, Sc.D., and Milton C. Weinstein, Ph.D.

Conclusions

- Online help: low-threshold, ubiquitously available
- Evidence for efficacy internet help for alcohol
- Therapist-led (IT) larger (long-term) effects
- Additional therapist effects outweigh costs: internet therapy is cost-effective (compared to internet self-help)

Thank you!

Research group

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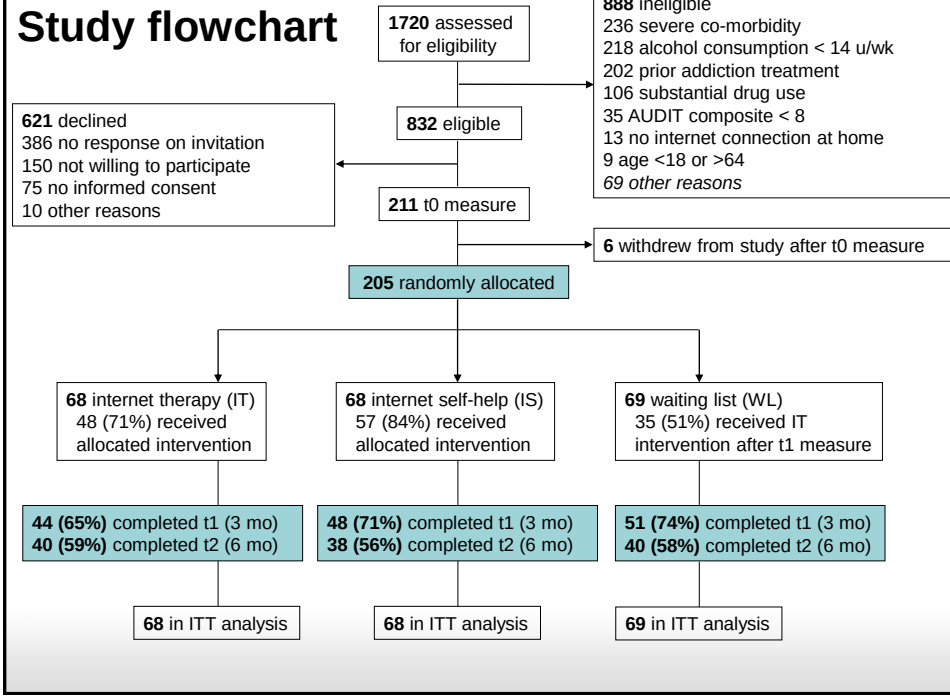
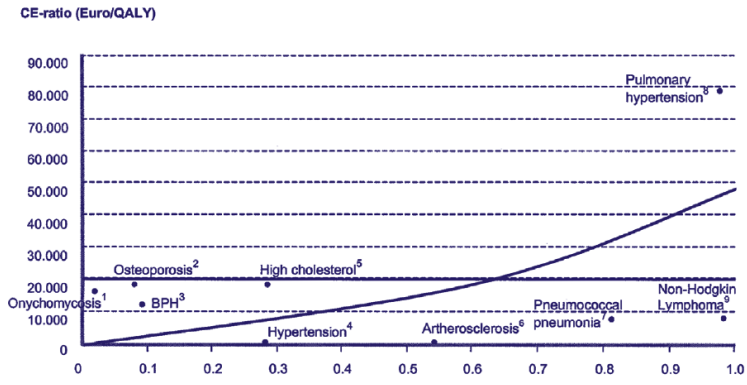
Additional materials

Study flowchart



Figuur 5.2 de relatie tussen de acceptabele CE ratio en de ernst van de aandoening.



Bron: Stolk et al., 2004, in press

RVZ 2006

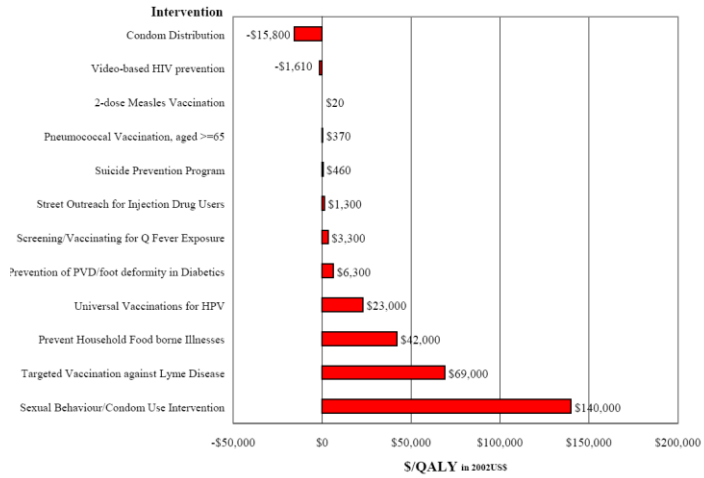


Figure 2. Cost per Quality-Adjusted Life-Year Gained for Selected Health Promotion Interventions

Some Economics of Health Promotion: What We Know, Don't Know and Need to Know Before Spending to Promote Public Health

Alan Shiell, PhD, and Karen McIntosh, MA

Shiell 2006 Harvard health pol rev

Cost-Effectiveness of Selected Preventive Measures and Treatments for Existing Conditions (2006 Dollars).*

Intervention	Cost-Effectiveness Ratio
Preventive measures	
Haemophilus influenzae type b vaccination of toddlers	Cost-saving
One-time colonoscopy screening for colorectal cancer in men 60–64 years old	Cost-saving
Newborn screening for medium-chain acyl-coenzyme A dehydrogenase deficiency	$160/QALY
High-intensity smoking-relapse prevention program, as compared with a low-intensity program	$190/QALY
Intensive tobacco-use prevention program for seventh- and eighth-graders	$23,000/QALY
Screening all 65-year-olds for diabetes as compared with screening 65-year-olds with hypertension for diabetes	$590,000/QALY
Antibiotic prophylaxis (amoxicillin) for children with moderate cardiac lesions who are undergoing urinary catheterization	Increases cost and worsens health
Treatments for existing conditions	
Cognitive-behavioral family intervention for patients with Alzheimer's disease	Cost-saving
Cochlear implants in profoundly deaf children	Cost-saving
Combination antiretroviral therapy for HIV-infected patients	$29,000/QALY
Liver transplantation in patients with primary sclerosing cholangitis	$41,000/QALY
Implantation of cardioverter–defibrillators in appropriate populations, as compared with medical management alone	$52,000/QALY
Left ventricular assist device, as compared with optimal medical management, in patients with heart failure who are not candidates for transplantation	$900,000/QALY
Surgery in 70-year-old men with a new diagnosis of prostate cancer, as compared with watchful waiting	Increases cost and worsens health

* The cost-effectiveness ratio is the incremental costs divided by the incremental benefits, relative to a comparator. The comparator is omitted from the intervention's description if it was no treatment or current treatment or if the intervention was added to, rather than substituted for, another treatment. The cost-effectiveness estimates listed are point-estimate values from the original articles (a more detailed table appears in the Supplementary Appendix, available with the full text of this article at www.nejm.org). Preventive measures are those designed to avert the development of a condition. Treatments for existing conditions include both those designed to prevent the progression of a condition and those designed to ameliorate the effects of a disease or condition. QALY denotes quality-adjusted life-year. For more information see www.tufts-nemc.org/cearegistry.

Cohen 2008 NEJM

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