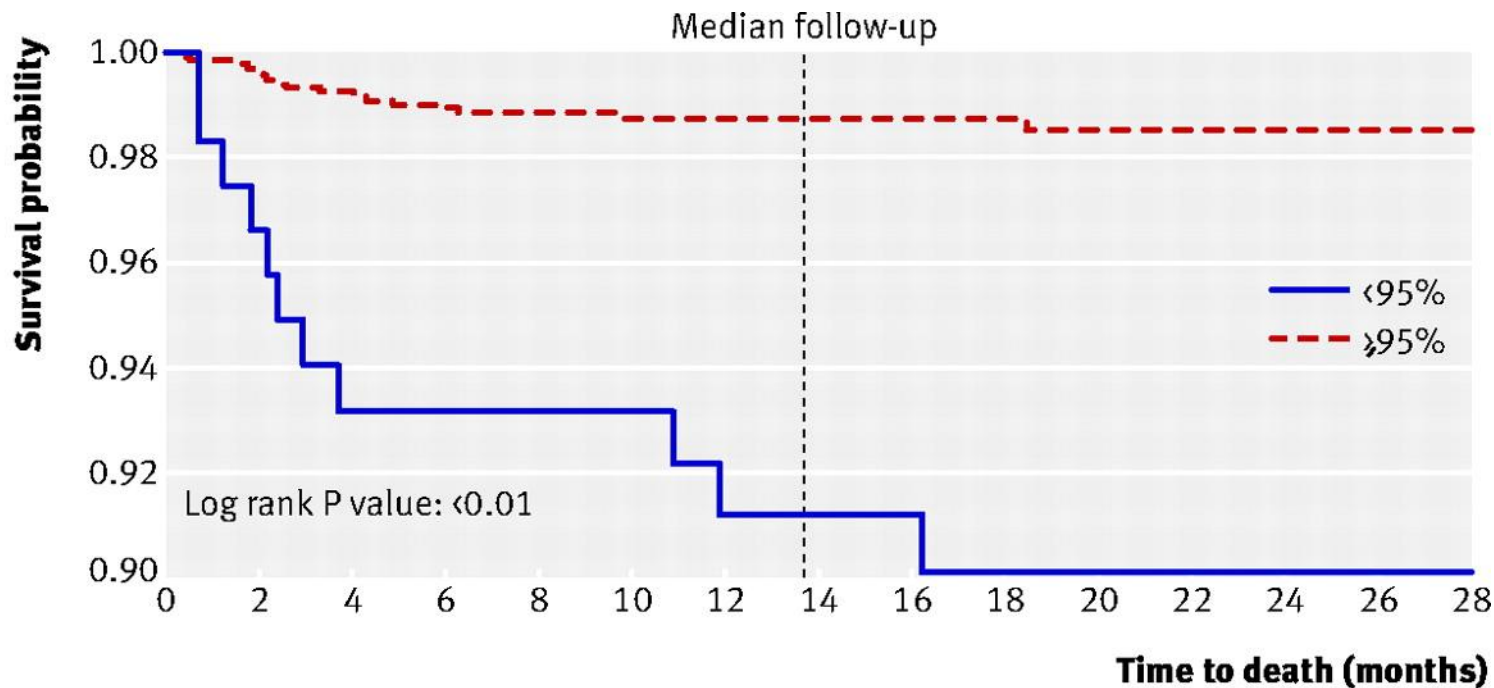


This might sound crazy but.....
Thinking outside the box in ART
adherence

Dr Tom Boyles

Department of Infectious Diseases
and HIV Medicine, UCT

Fig 2 Kaplan-Meier plot for survival in patients defined as adherent or not adherent (<95% or ≥95% adherence).

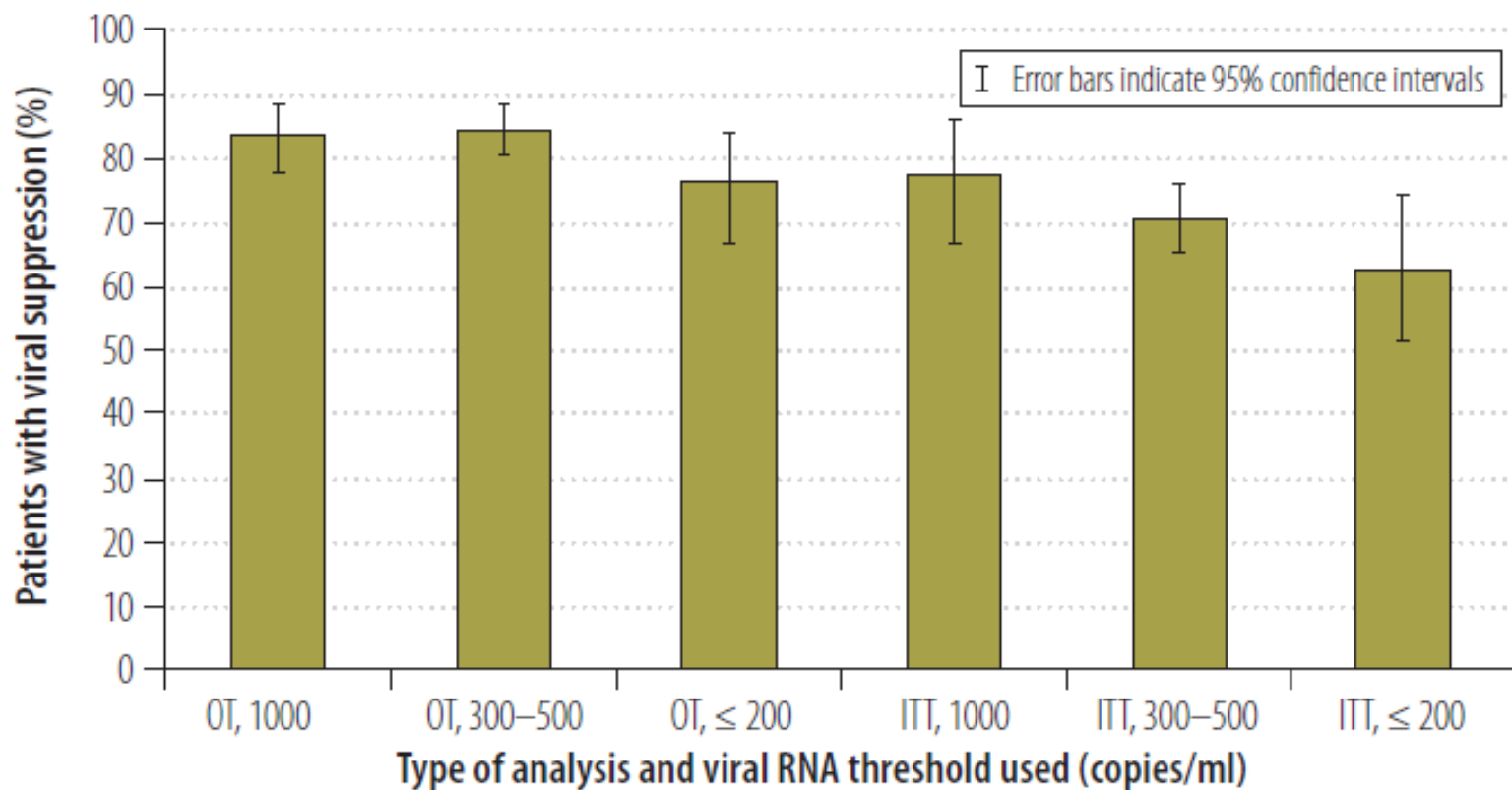


No of patients at risk:

Adherence <95%	118	106	100	91	84	82	65	34
Adherence ≥95%	1403	1266	1056	764	415	389	290	144

Kiboneka A et al. *BMJ* 2009;338:bmj.b201

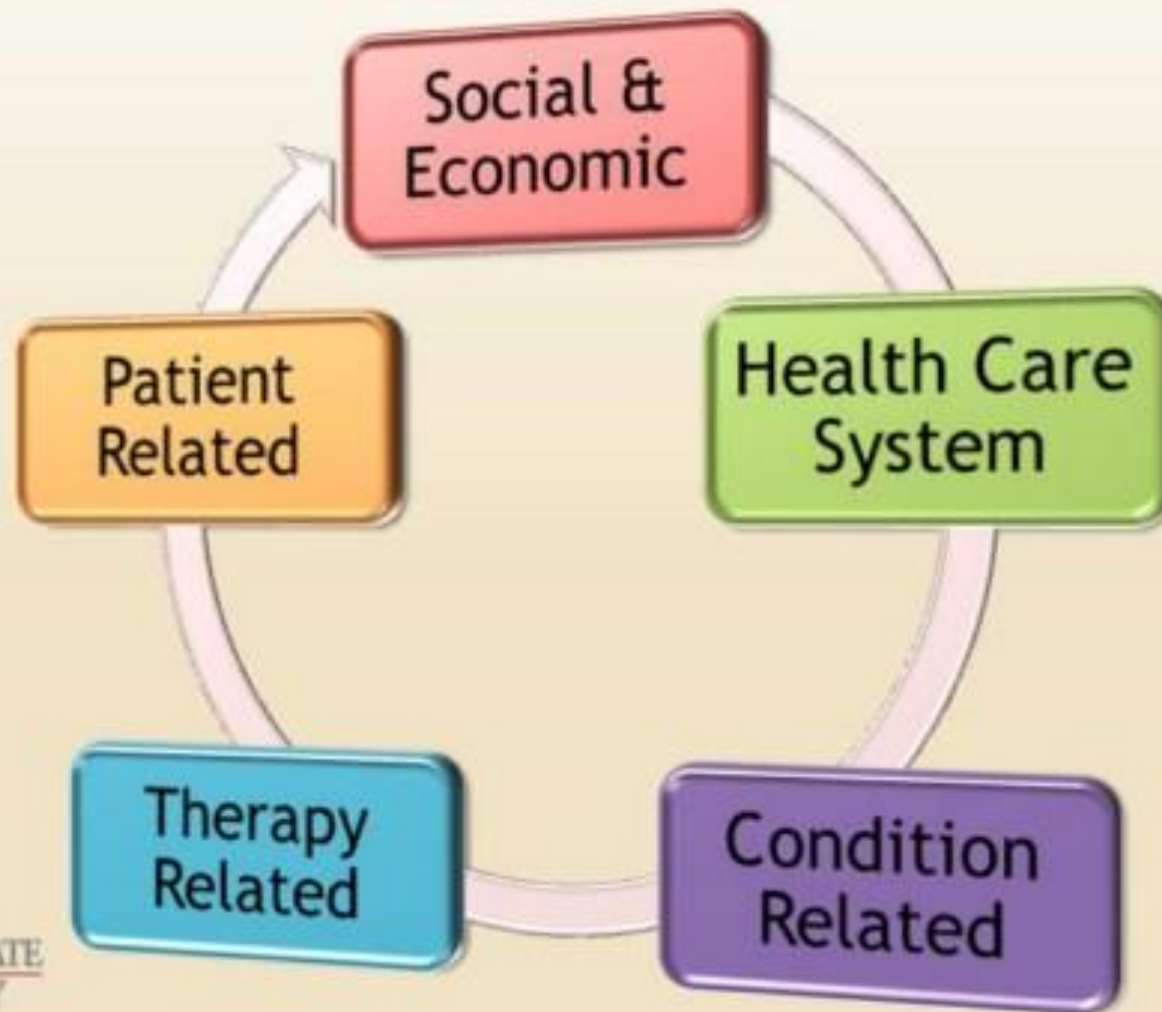
Fig. 2. **Viral suppression after 12 months of antiretroviral therapy in low- and middle-income countries**

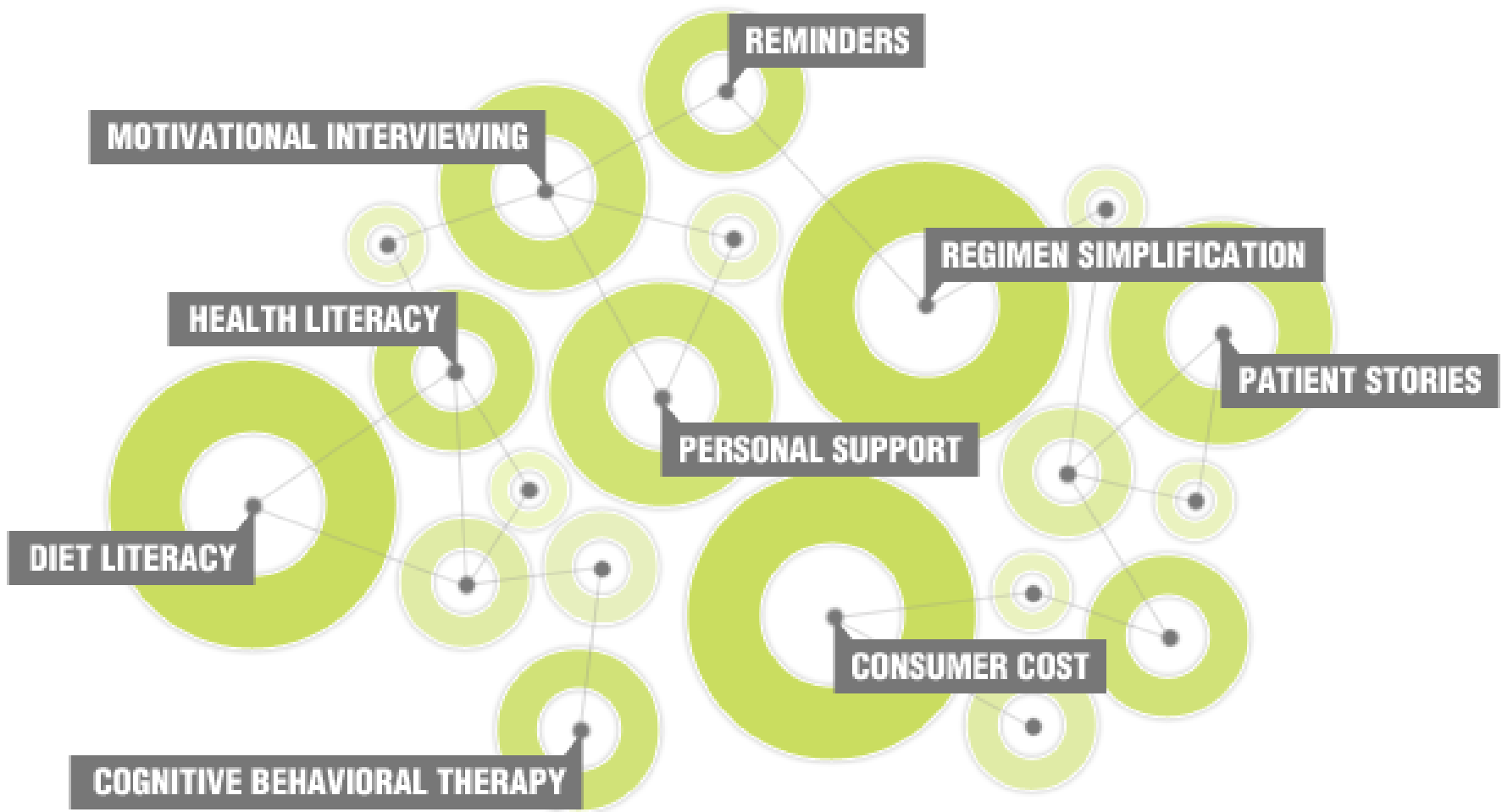


James H McMahon,^a Julian H Elliott,^a Silvia Bertagnolio,^b Rachel Kubiak^c & Michael R Jordan^c
Bull World Health Organ 2013;91:377–385E



WHO's Five Dimensions of Adherence

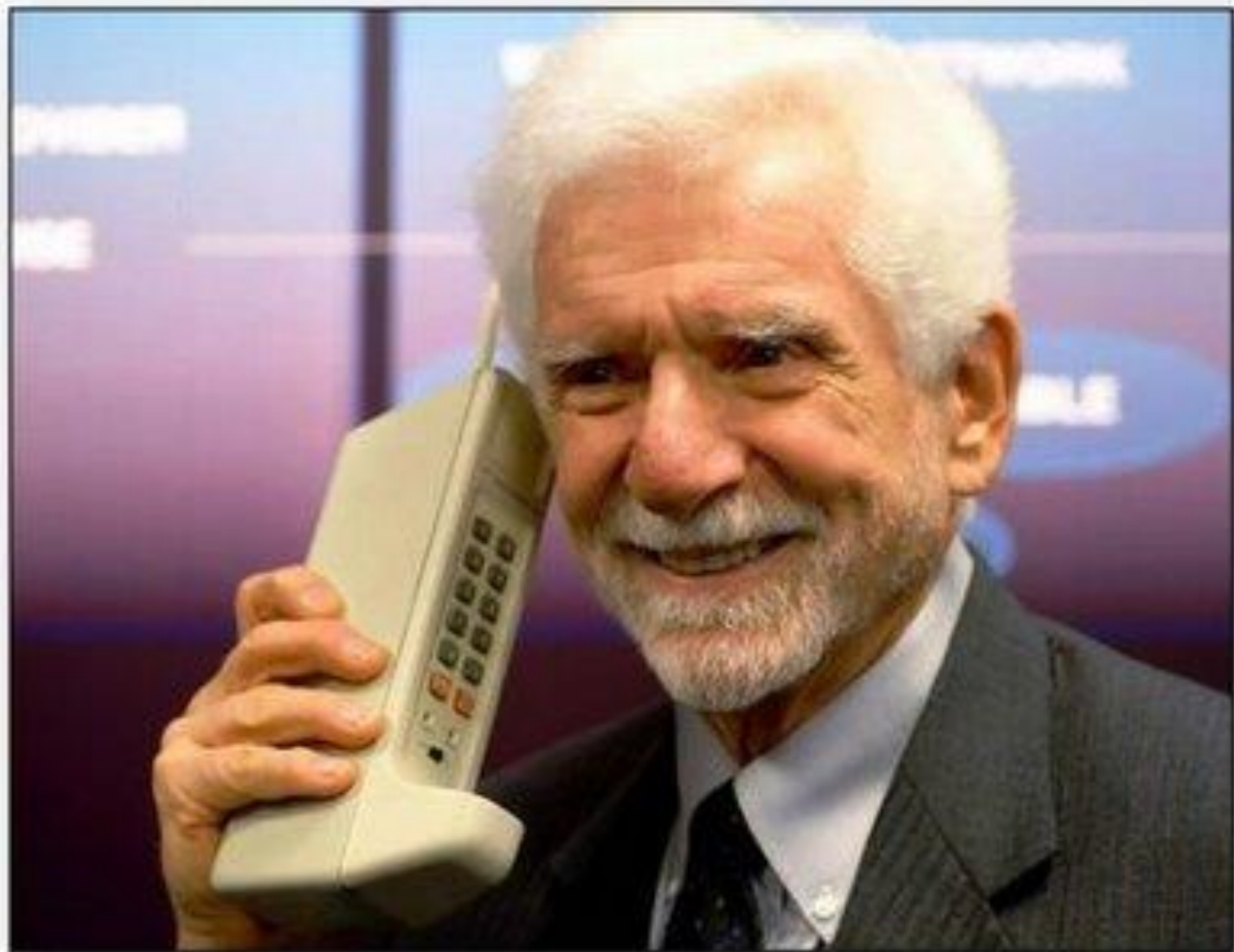






THINKING
INSIDE
THE BOX

A person is standing against a plain, light-colored wall. They are holding a rectangular sign in front of their face. The sign has the words "THINKING INSIDE THE BOX" written on it in a simple, hand-drawn font. The person is wearing a light-colored, patterned top and a light-colored skirt. Their arms are visible, holding the sign from the sides. The sign is held up by two long, thin strips of paper or fabric that hang down from the top corners.



Text Message Intervention Designs to Promote Adherence to Antiretroviral Therapy (ART): A Meta-Analysis of Randomized Controlled Trials

David J. Finitis*, Jennifer A. Pellowski, Blair T. Johnson

Department of Psychology, Center for Health, Intervention, & Prevention (CHIP), University of Connecticut, Storrs, Connecticut, United States of America

Conclusions: Text-messaging can support antiretroviral therapy adherence. Researchers should consider the adoption of less frequent messaging interventions with content and timing that is individually tailored and designed to evoke a reply from the recipient. Future research is needed in order to determine how best to optimize efficacy.

it's
the economy,
stupid

TWO HUNDRED MILLION RAND

AB9311442 E SUID-AFRIKAANSE RESERVEBANK

TWO HUNDRED MILLION RAND



200,000,000



Mboweni

President
Governor

SOUTH AFRICAN RESERVE BANK

AB9311442 E

Effects of Ecuador's national monetary incentive program on adherence to treatment for drug-resistant tuberculosis

A. Sripad,* J. Castedo,* N. Danford,† R. Zaha,† C. Freile‡

*Geisel School of Medicine at Dartmouth, Hanover, New Hampshire, †The Dartmouth Center for Health Care Delivery Science, Hanover, New Hampshire, USA; ‡National Tuberculosis Program of Ecuador, Quito, Ecuador

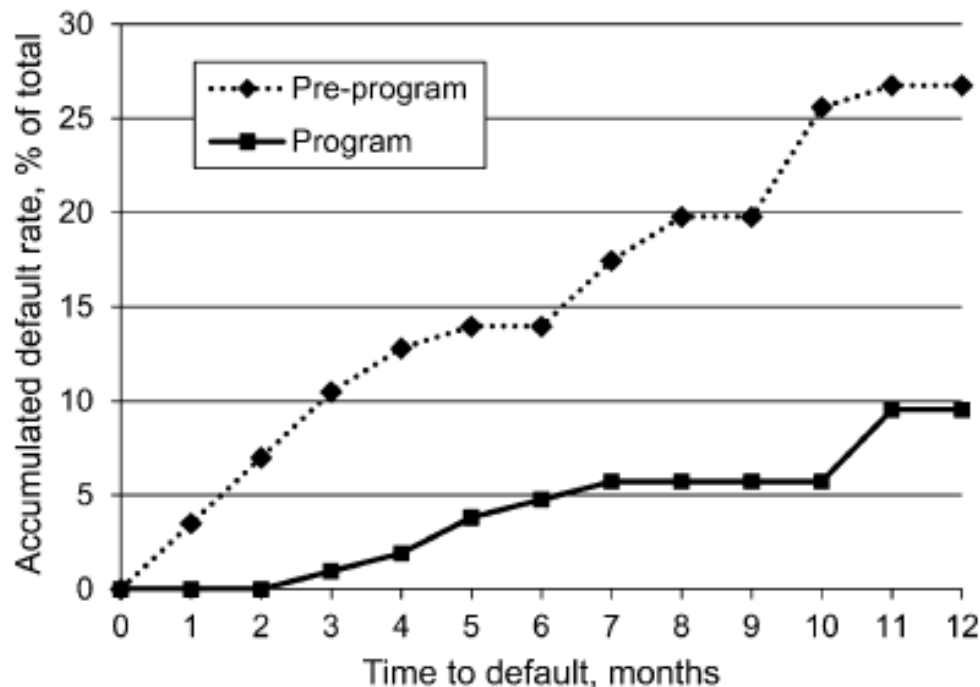


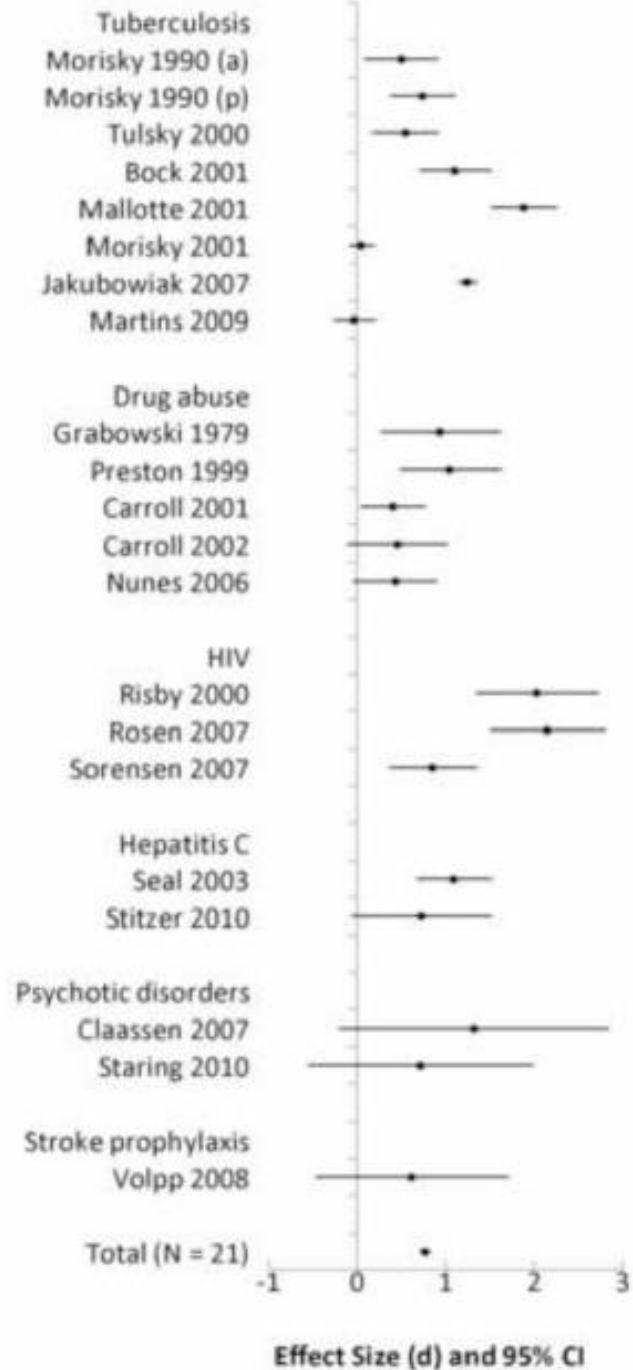
Figure Time to default from MDR-TB treatment, 2010–2012, Ecuador. 1-year default rates: pre-program = 26.7%; program = 9.5%. MDR-TB = multidrug-resistant tuberculosis.

Am J Med. 2012 September ; 125(9): 888–896. doi:10.1016/j.amjmed.2012.01.003.

Financial reinforcers for improving medication adherence: Findings from a meta-analysis

**Nancy M. Petry, Ph.D., Carla J. Rash, Ph.D., Shannon Byrne, Ph.D., Shehryar Ashraf, M.D.,
and William B. White, M.D.**

Calhoun Cardiology Center, University of Connecticut School of Medicine, Farmington



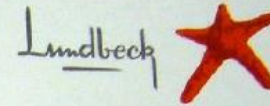
Effect Size (d) and 95% CI

Adherence aids









10 x 1 ml ampoules

Clopixol[®] Depot

Injection 200 mg/ml

Zuclopenthixol decanoate

For deep intramuscular injection only

Manufactured in Denmark by:
H. Lundbeck A/S - Copenhagen



Lopinavir &
Ritonavir Tablets IP

Lopimmune

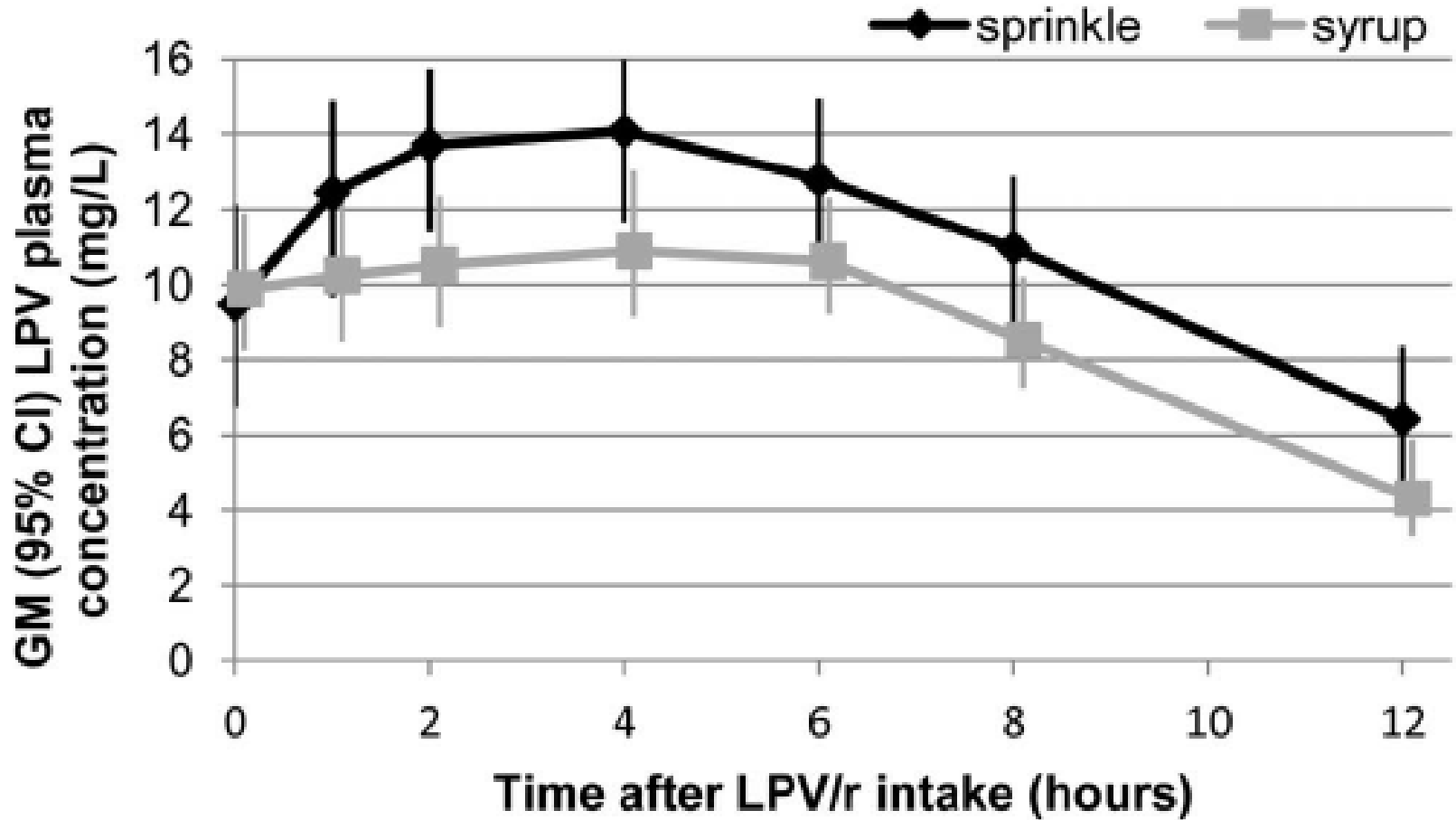
sprinkles

NET WT 6.25 OZ (177G)

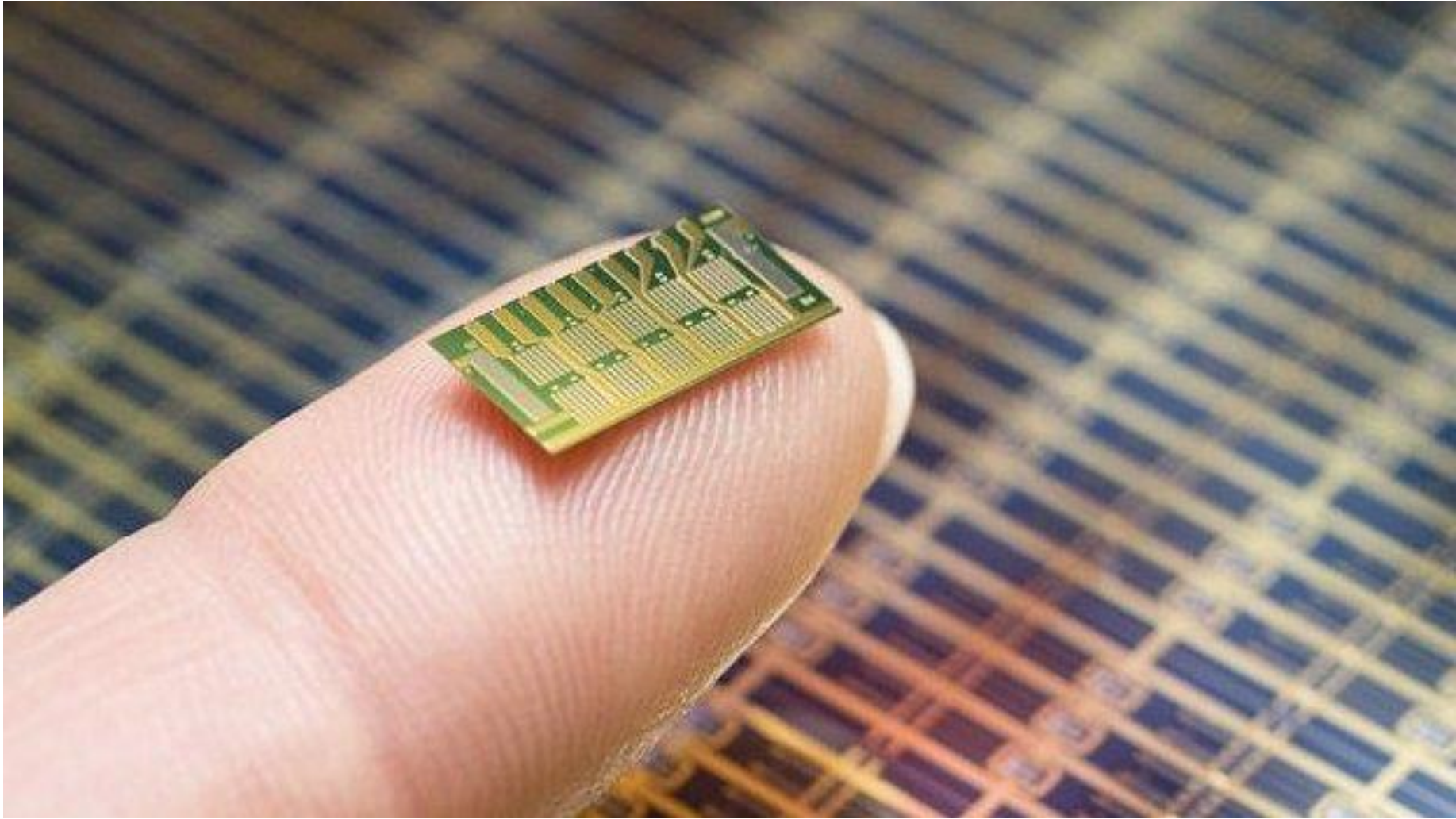
Rainbow Jimmies

B

Cohort B (minitab sprinkle vs syrup in children 1 to <4 years)



'Remote control' contraceptive chip



X out TB: Monitoring Patient Compliance with Tuberculosis Treatment Regimens





THINK
OUTSIDE
THE
BOX





Depression and HIV/AIDS Treatment Nonadherence: A Review and Meta-analysis

Jeffrey S. Gonzalez, PhD^{*,†,‡}, Abigail W. Batchelder, MPH, MA^{*}, Christina Psaros, PhD^{‡,§}, and Steven A. Safren, PhD^{‡,§}

35,029 participants

$r = 0.19$

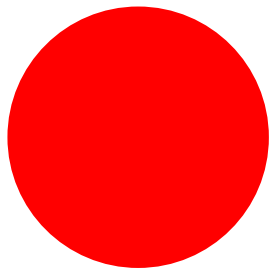
Low-resource settings

Fixed Dose Combination ARV



3 ARV pills in 1.
Taken once a day.

Fixed Dose Combination ARV and antidepressant



+



+



+



=



4 X ARV pills in 1.
Taken once a day.

addiction

needs
affect
concept
affect
most
mood
feel
abuse
avoid
affect
states
most

negative

abuse
person

gambling
preoccupation

mental disorder
psychological factor

anxiety
result
risky
issue
problem
negativ

effect

hallucinations

problem gambling

behavioral modification

alcohol abuse

symptoms

poisoning

attention





**VIRAL LOAD
UNDETECTABLE**



HISTORICAL

- Previous History
- Expectation
- Learning

DRUGS

BIOLOGICAL

- Genetics
- Circadian Rhythms
- Disease States
- Gender

BRAIN MECHANISMS



ENVIRONMENT

- Social Interactions
- Family
- Stress
- Conditioned Stimuli



HISTORICAL

- Previous History
- Expectation
- Learning

DRUGS

BIOLOGICAL

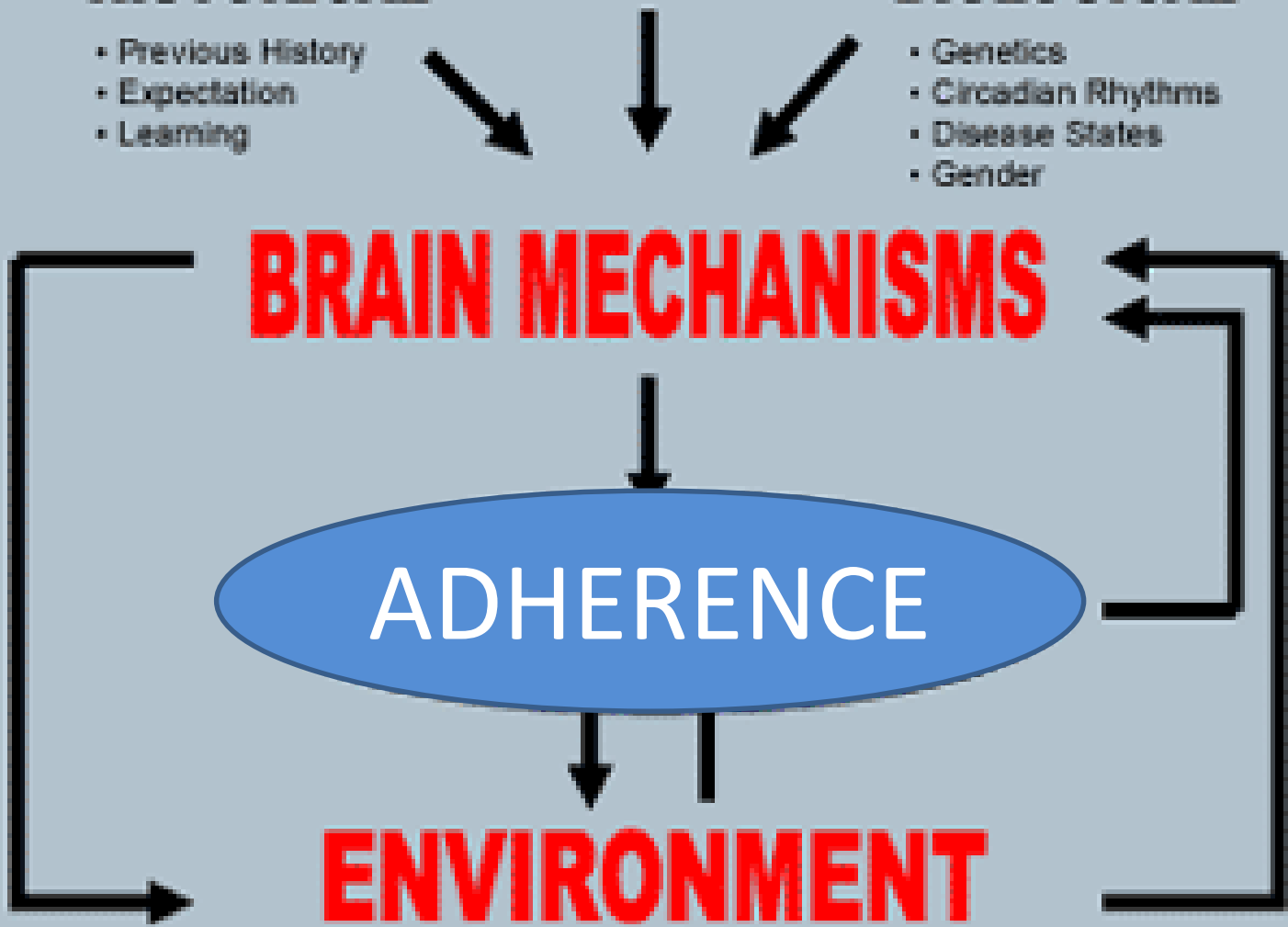
- Genetics
- Circadian Rhythms
- Disease States
- Gender

BRAIN MECHANISMS

ADHERENCE

ENVIRONMENT

- Social Interactions
- Family
- Stress
- Conditioned Stimuli



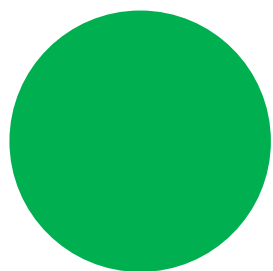


Addiction Recovery
SYSTEMS

The logo for Addiction Recovery Systems features the company name in a serif font. 'Addiction' is in blue, 'Recovery' is in red, and 'SYSTEMS' is in a smaller, black, all-caps sans-serif font below it. To the right of the text is a square icon composed of a 3x3 grid of smaller squares in red, blue, and yellow.



Fixed Dose Combination ARV and addictive drug



+



+



+



=



4 ~~X~~ ARV pills in 1.
Taken once a day.



Characteristics of drug

- Cheap
- Induces stable addiction (24hrs)
- Limited euphoric state
- Minimal drug interactions
- Minimal side effects
- Limited street value
- Not easily obtainable elsewhere
- Single preparation available

Candidate compounds

- Opiates?
 - Buprenorphine
 - Oxycodone
 - Oxymorphone
- Stimulants?
- Relaxants?

SAVE TAC, SAVE LIVES



**SOUTH AFRICA NEEDS TAC
NOW MORE THAN EVER!**

Donate TODAY!

www.tacgivengain.org

THINK
OUTSIDE
THE
BOX

