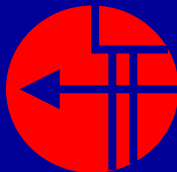


# The Gay Cruise: Developing Theory- and Evidence-Based Internet HIV-Prevention

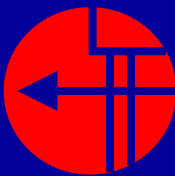


Gerjo Kok, Paul Harterink, Pjer Vriens,  
Onno de Zwart & Harm Hospers  
Universiteit Maastricht – GG&GD Rotterdam



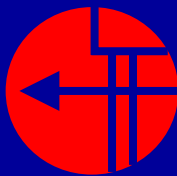
# The Gay Cruise

- Internet and Unsafe Sex
- Intervention Mapping
- Applying Intervention Mapping
- Examples of Theory Application
- Advanced technological possibilities
- Evaluation Plan
- Conclusions



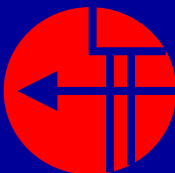
# Internet and Unsafe Sex

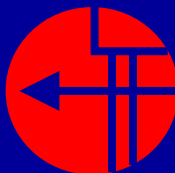
- Internet: seeking sex partners – MSM
- High percentage of unsafe sex
  - Hospers et al. 2004: 23% last six months
- Internet interventions: mixed effects
  - Bull et al. 2004: loss of respondents
  - Davidovich et al., 2004: Negotiated Safety ↑



# Intervention Mapping

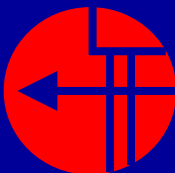
- A systematic process to develop health promotion programs based on theory, empirical evidence, and additional research
- Bartholomew et al., 2006

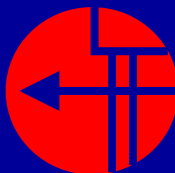




# Needs Assessment

- Behavior and Environment
- Behavior:
  - Unprotected anal sex: individual chatters
- Environment:
  - Social norms: other chatters, site
  - Availability and accessibility: health services





## 2. Matrices of Objectives

Goal:

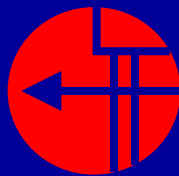
- *Correctly and consistently using condoms for anal sex with e-dates*

Performance objectives:

- *What do the participants in the program need to do to perform the behavior or change the environment?*

Change objectives:

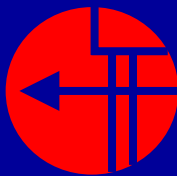
- *PO's x Determinants x Populations*





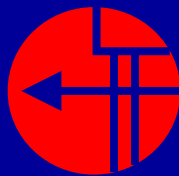
# Performance Objectives

- Take a decision to use condoms at e-date
- Purchase quality condoms and lube
- Negotiate condom use in advance
- ?
- ?
- ?
- ?



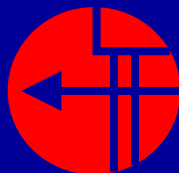
# Performance Objectives

- Take a decision to use condoms at e-date
- Purchase quality condoms and lube
- Negotiate condom use in advance
- Express wish to use condoms in profile
- Carry enough condoms when e-dating
- Correctly apply condoms
- Use condoms consistently at all dates, even in difficult situations



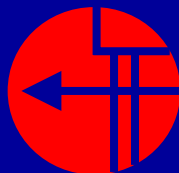
# Determinants

Personal determinants	Imp.	Cha.
Knowledge	+	?
Risk perception	+	
Attitude	++	
Anticipated regret	++	
Personal norm	+++	
Subjective norm	+	
Self-efficacy	+++	
Skills	++	
Habit	++	



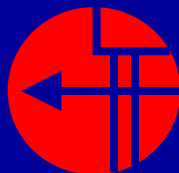
# Determinants

Personal determinants	Imp.	Cha.
Knowledge	+	+++
Risk perception	+	+
Attitude	++	+
Anticipated regret	++	+
Personal norm	+++	+
Subjective norm	+	+
Self-efficacy	+++	+
Skills	++	+
Habit	++	+



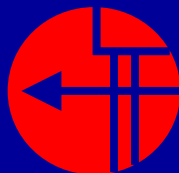
# Determinants

External determinants	Imp.	Cha.
Social norm – Other chatters	+	?
Cues for safe sex – Chat room operators	+++	
Access to condoms – Health services	+++	



# Determinants

External determinants	Imp.	Cha.
Social norm – Other chatters	+	+
Cues for safe sex – Chat room operators	+++	+
Access to condoms – Health services	+++	+



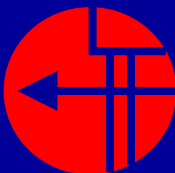
# Change Objectives

- Population  
x Performance Objective  
x Determinant

*E-daters*

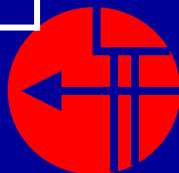
*express confidence in*

*always having condoms available*



# Matrix

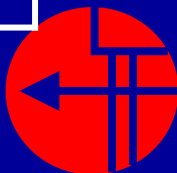
Performance objectives: E-daters...	Determinants		
	Attitude	Self-Efficacy	Access*
Take a decision to always use condoms	<i>Anticipate disadvantages of condom use</i>	<i>Express confidence to use condoms in all e-dates</i>	
Purchase quality condoms		?	?
Use condoms correctly and consistently	<i>Recognize advantages of safe sex</i>	?	

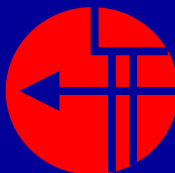
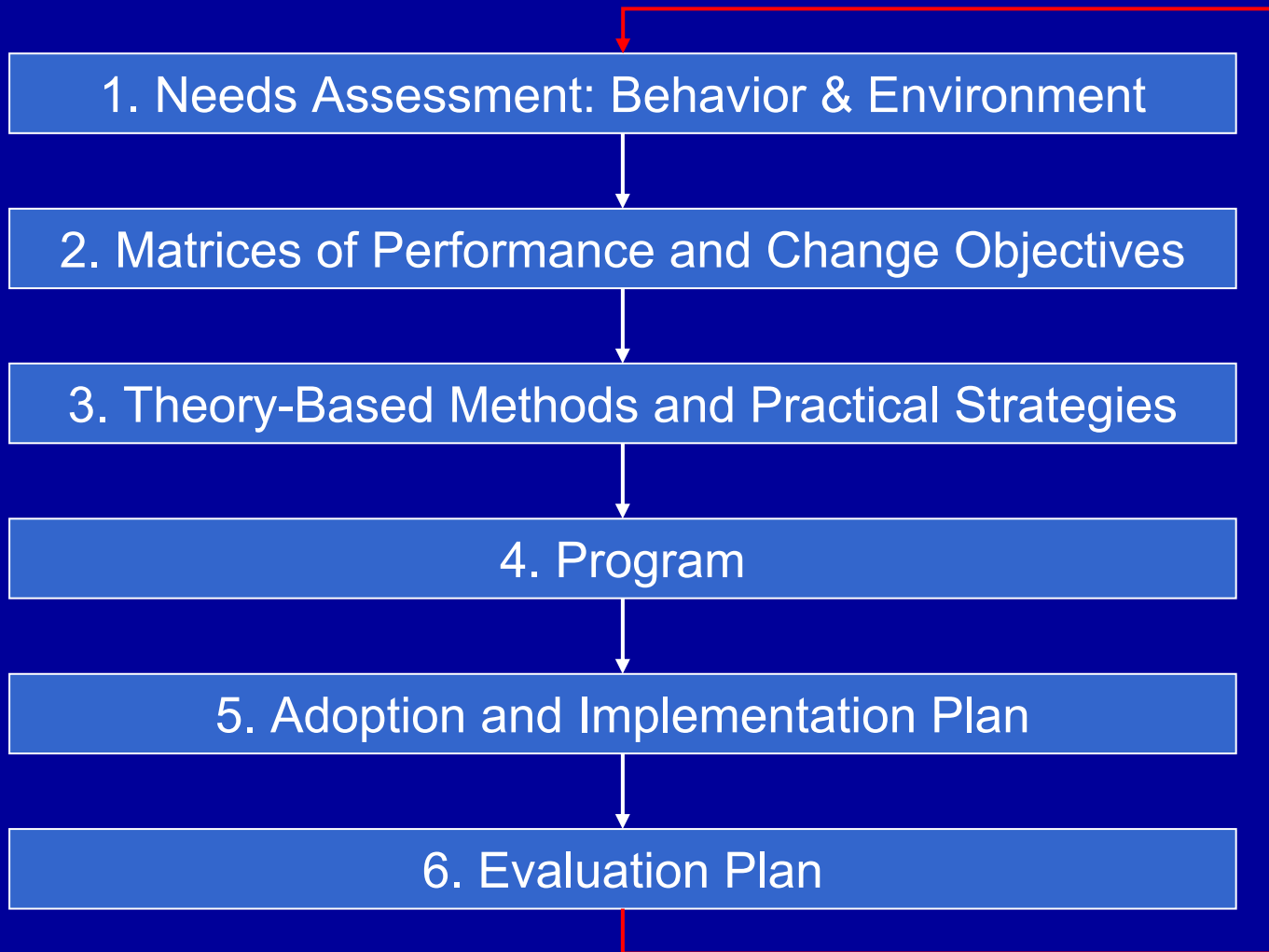




# Matrix

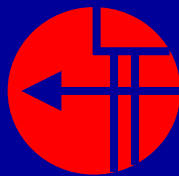
Performance objectives: E-daters...	Determinants		
	Attitude	Self-Efficacy	Access*
Take a decision to always use condoms	<i>Anticipate disadvantages of condom use</i>	<i>Express confidence to use condoms in all e-dates</i>	
Purchase quality condoms		<i>Express confidence to buy condoms</i>	<i>Health Services provide info about condoms</i>
Use condoms correctly and consistently	<i>Recognize advantages of safe sex</i>	<i>Express confidence to stay in control</i>	





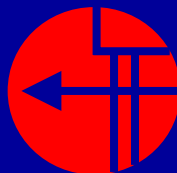
# Methods and Strategies

- Method:  
*Theory-based process for changing determinants*
- Strategy:  
*Practical application of method, fitting with population and context*
- Parameters:  
*Conditions under which the method has been shown to be effective*



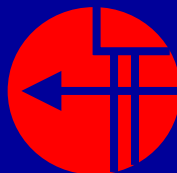
# Methods and Strategies

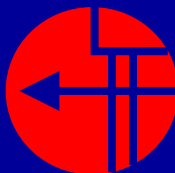
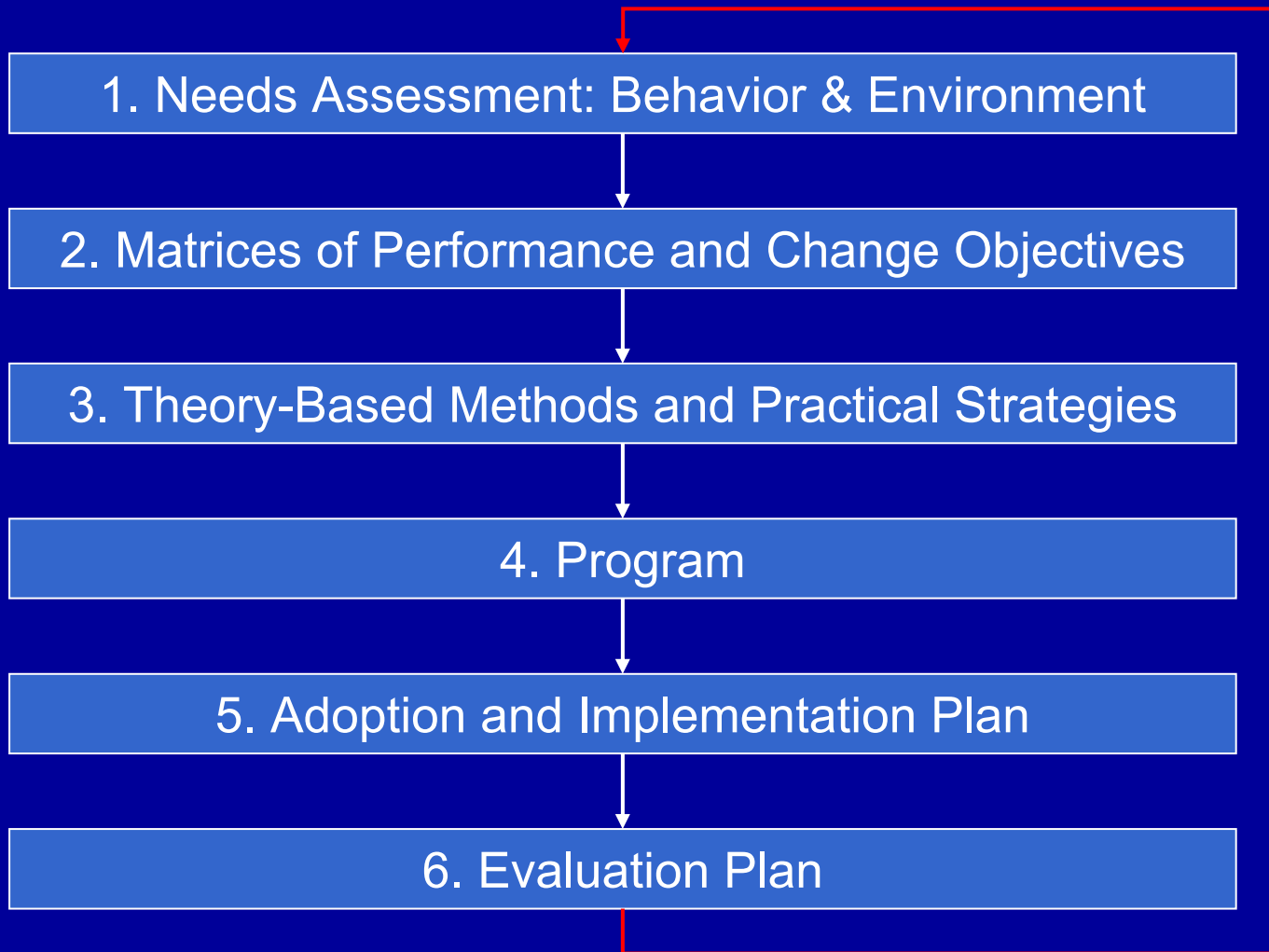
Determinant	Method & Theory	Parameters	Strategy
Knowledge	Active learning <u>TransTheoretical Model</u>	Requires time, information, and skills	Stats & Sex Quiz 1 & 2
Attitude	Shifting perspective <u>Protection-Motivation Theory</u>	Start with the perspective of the learner	What's Your Opinion Dialogue
Self-Efficacy	Modeling <u>Social Cognitive Theory</u>	?	Date Movies 1&2 Date training



# Methods and Strategies

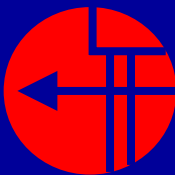
Determinant	Method & Theory	Parameters	Strategy
Knowledge	Active learning <u>TransTheoretical Model</u>	Requires time, information, and skills	Stats & Sex Quiz 1 & 2
Attitude	Shifting perspective <u>Protection-Motivation Theory</u>	Start with the perspective of the learner	What's Your Opinion Dialogue
Self-Efficacy	Modeling <u>Social Cognitive Theory</u>	Requires skills, identification, reinforcing and coping model	Date Movies 1&2 Date training





# Program

- Linkage with targets and implementers
- Scope
- Sequence
- Theme
- Materials and pilot testing



# Theme: The Gay Cruise

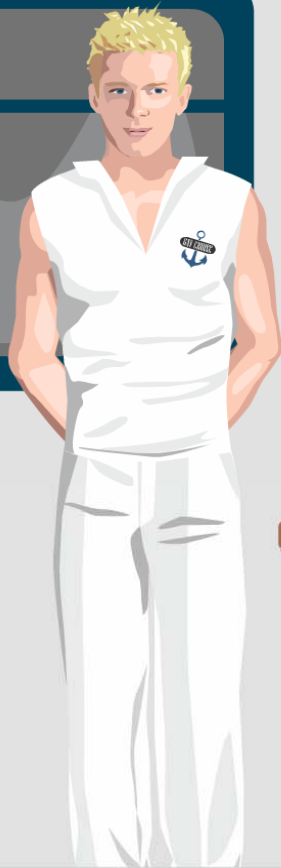


- Gay subculture: cruising, sailors
- Trips, starting with boarding
- Pursers as relational agents
- Other daters as passengers
- Alternative for the control group





Choose your own purser NOW.  
He will be all yours...



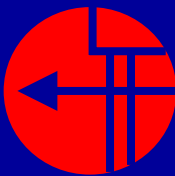
# Relational Agents

- *Computational artifacts designed to build and maintain social-emotional relationships with their users*
- Pursers
- Attractive, friendly & intelligent impression
- Asks questions, gives feedback, discusses trips and sends e-mails



# Computer Tailoring

- Tailoring: The adaptation of the program to (previously measured) characteristics of the individual target person
- Computer Tailoring: The purser gives feedback and instructions based on the answers that the visitors give.



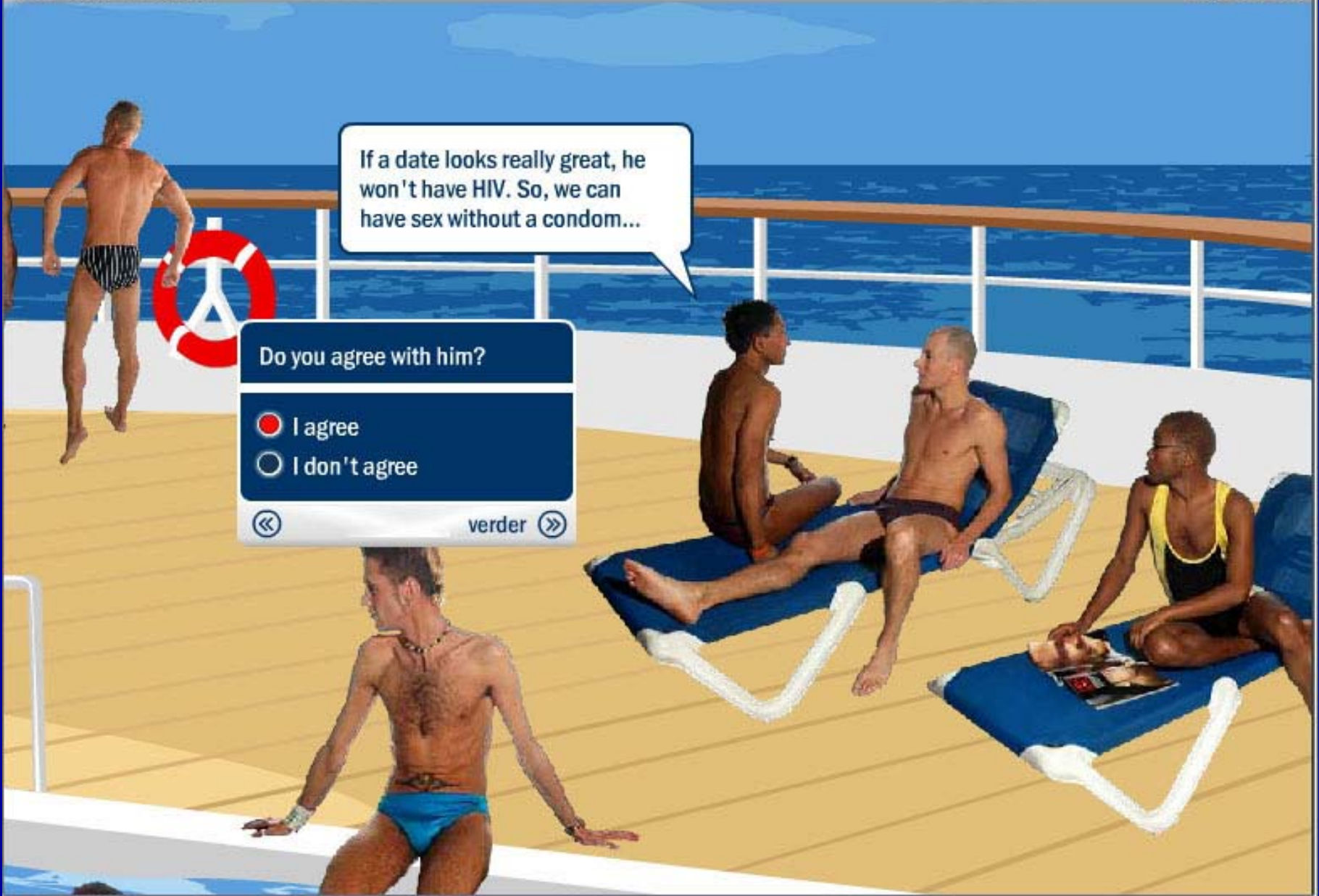
If a date looks really great, he won't have HIV. So, we can have sex without a condom...

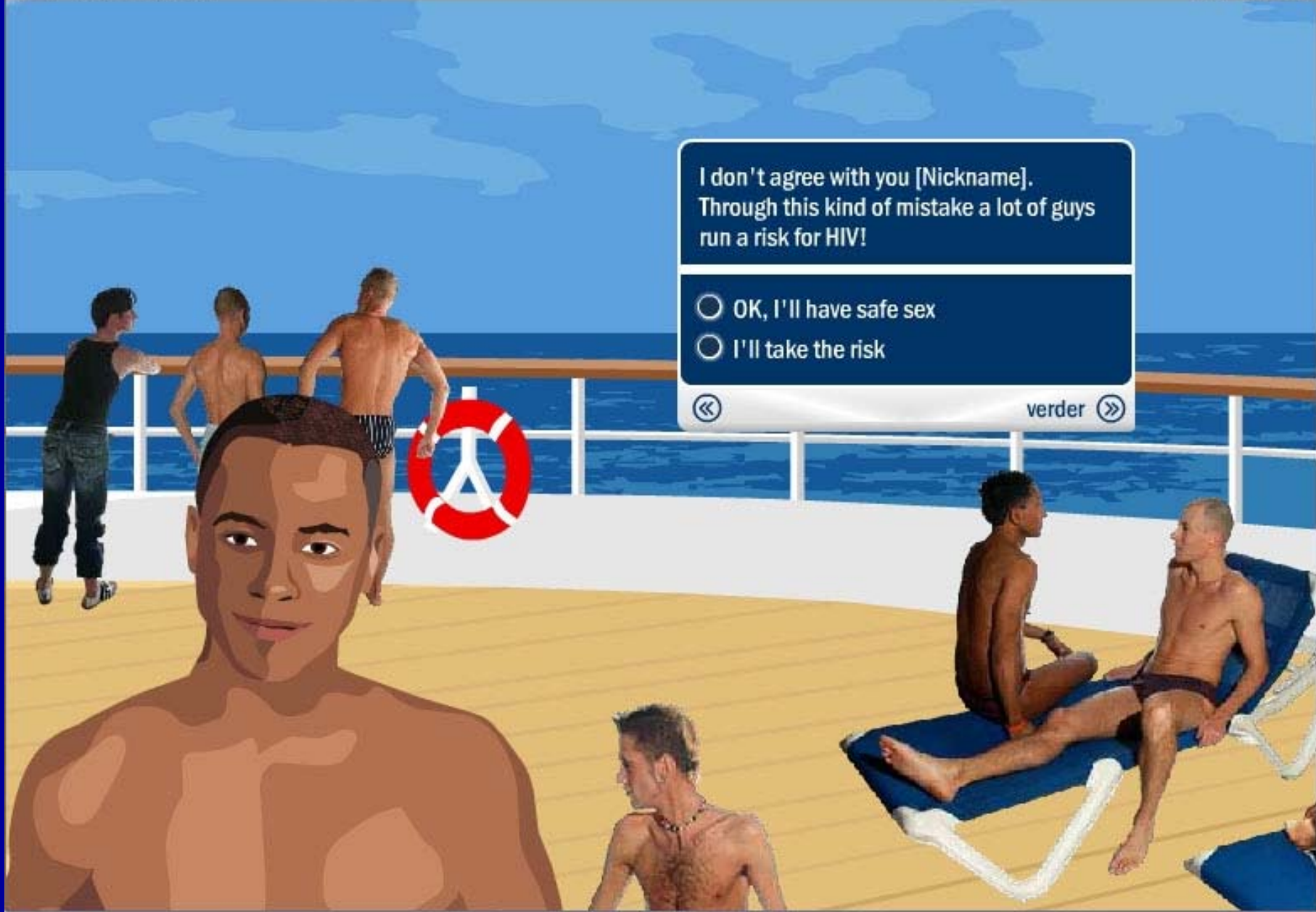
Do you agree with him?

- I agree
- I don't agree



verder





I don't agree with you [Nickname].  
Through this kind of mistake a lot of guys  
run a risk for HIV!

- OK, I'll have safe sex
- I'll take the risk

⏪ verder ⏩

**Other chatter in dialogue on cruise deck:**

*If a date looks really great, he won't have HIV. So, we can have sex without a condom...*

**On screen and audio: Do you agree with him?**

- o I agree
- o I don't agree

[ I don't agree ]

**Purser:** *Right! Through this kind of mistake a lot of guys run a risk for HIV!*

[ I agree ]

**Purser:** *I don't agree with you [Nickname]. Through this kind of mistake a lot of guys run a risk for HIV!*

**On screen and audio:**

- o OK, I'll have safe sex
- o I'll take the risk

[OK, I'll have safe sex]

**Purser:** *Smart move mate! Just use a condom...*

[I'll take the risk]

**Purser:** *So, you are willing to take the risk. I will tell you more about HIV infection and treatment in a moment.*



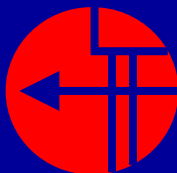
Smart move mate! Just use a condom...

« verder »



# Modeling (SCT)

- Requires skills, identification, reinforcing and coping model
- **Date movie 1: Failure because of different expectations**
- Feedback and instructions: Letting know about self and finding out about the other
- **Date movie 2: Success because of similar expectations**





That date was a disaster! Cool that Harold just left that guy. He could have ended up having unsafe sex.

Imagine [nickname] that you have unsafe sex at your next sex date, how scared would you feel afterwards?

- very scared
- rather scared
- a little scared
- not scared

⏪ verder ⏩



So you don't feel scared or guilty after unsafe sex? You don't care? I would feel pretty bad when I did not keep my own safe sex deal.

« verder »



I think that Harold feels bad himself too. And that is just what he doesn't want to happen. If you give him the right hints, you could help Harold with that.

For a start you can tell Harold what you think are the reasons that men have disappointing dates. Your answers are going to help Harold to have better dates [Nickname].

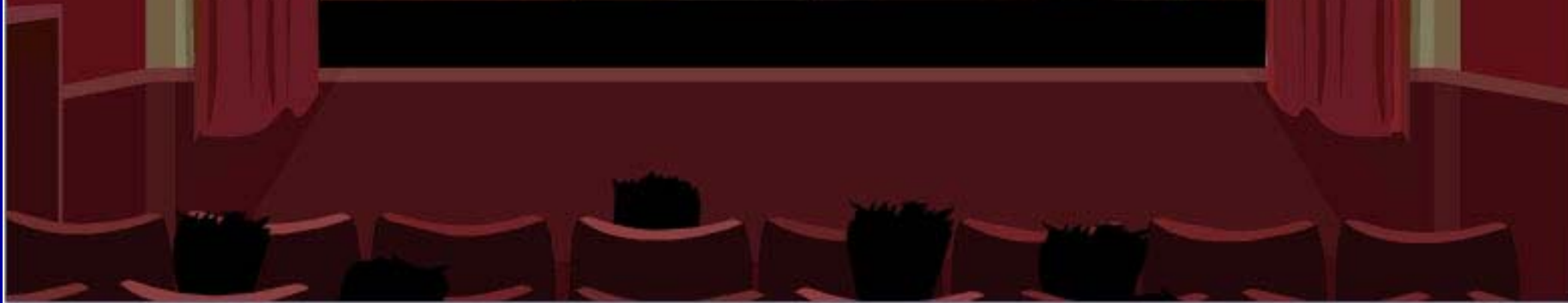
After the break we will see if they worked. I will keep these answers on your personal webpage.

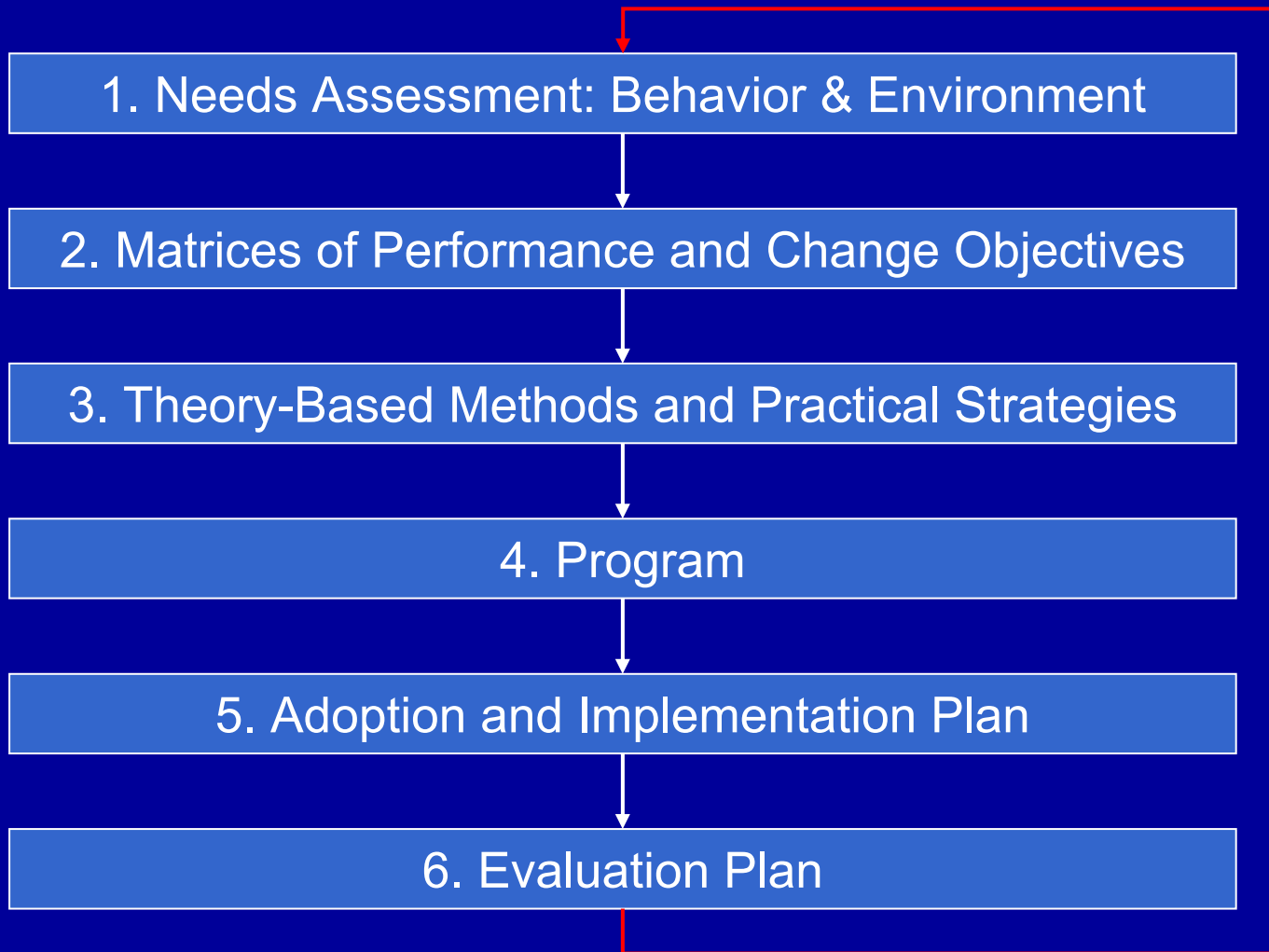


verder



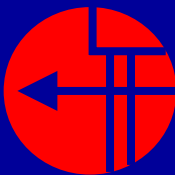
Just checking if you choose for safe too ;-)  
I don't want to be disappointed, you know!





# Planning Implementation

- Linkage:  
Program developers and program users
- Health Service
- Chat room operators [Chatboy.nl](#)
- Other relevant organizations

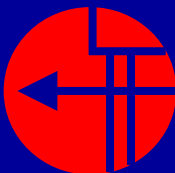






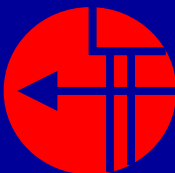
# Planning Evaluation

- Effect evaluation (Outcome level):
  - HIV
  - Behaviors
  - Determinants
- Process evaluation:
  - Parameters
  - Implementation



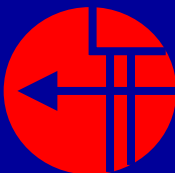
# Evaluation Study

- Pre- & post-test with control group
  - Control: dating, *no safe sex*
  - Randomization *after* logging in
  - Enrollment: *dating and sex without worries*
- Anticipating drop-out: incentives
  - commitment
  - follow up reminders
  - snooze reminders
  - 3 month post-test



# Evaluation Study

- First results promising:
  - 3025E/2965C E-mail address
  - 94% Finished pre-test
  - 60% Experimental group finished program
  - 86% 'Very nice'
- 
- Significant changes: condom related behavior, anticipated regret



# Results subgroup UAI



Sex with casual partners, UAI at pretest

 unsafe pre → safe post

 unsafe pre → unsafe post

# Conclusions

- IM: helpful and practical
- Translating theory into practice
- Theory in every decision
- Easy to communicate with others
  
- Advanced technological possibilities
  
- Promising

