

**Using computer-assisted  
diabetes self-management in  
primary care:  
lessons from four projects**

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# Purpose

Compare relative outcomes for patient **REACH**, physician **ADOPTION**, and **EFFECTIVENESS** of computer-assisted diabetes self-management programs, accessed from:

- **Clinics**
- **Community**
- **Home-settings**

# Reach & Adoption Defined

## **REACH:**

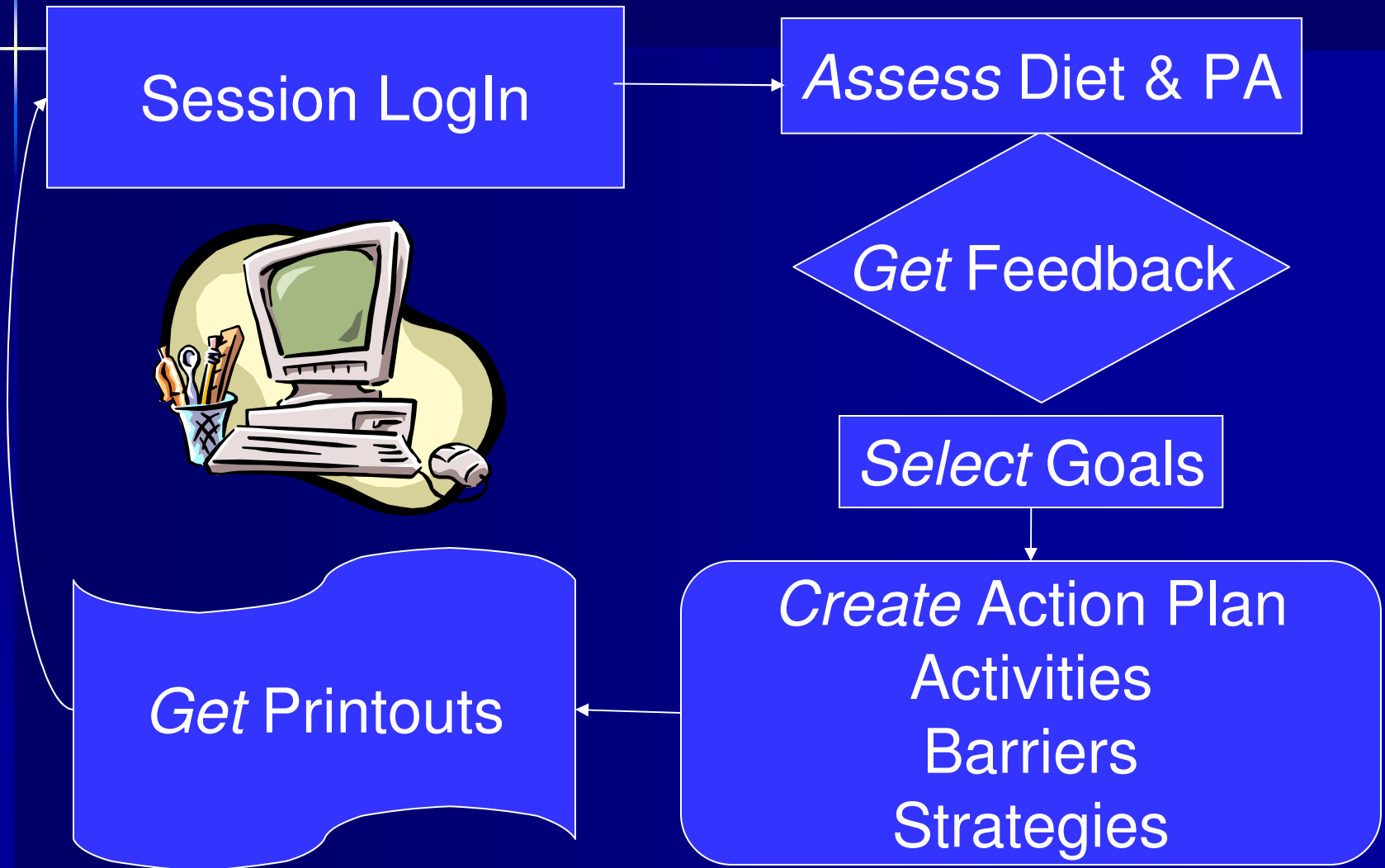
**percent & representativeness of patients willing to participate in the studies.**

## **ADOPTION:**

**percent & representativeness of physicians willing to refer patients.**

[www.re-aim.org](http://www.re-aim.org)

# Self-Management Approach



# Four Studies Summarized

**1. D-NET (N=320, 10 months)**

Web-based, from home. Effectiveness study.

**2. Diabetes Priority Program (N=886, 12 months)**

CD-ROM, from physician's office. Effectiveness study.

**3. Choosing Well (N=320, 6 months)**

CD-ROM, single study office. Efficacy study.

**4. Diabetes Health Connection (N=335, 18 months)**

CD-ROM, multiple study offices. Efficacy study.

# Effectiveness Compared

Outcomes	Home (Web)	Clinic	Non-Clinic (single)	Non-Clinic (multiple)
Physical Activity	↑ (NS)	↑	--	↑
Diet	↓ Fat	↓ Fat ↑ F&V	↓ Fat ↑ F&V	↓ Fat
Physiol.	↓ TChol ↓ LDL	↓ TChol ↓ HbA1c	↓ TChol	↓ Weight
Quality of Life	↑	↑	↑	↑ (NS)

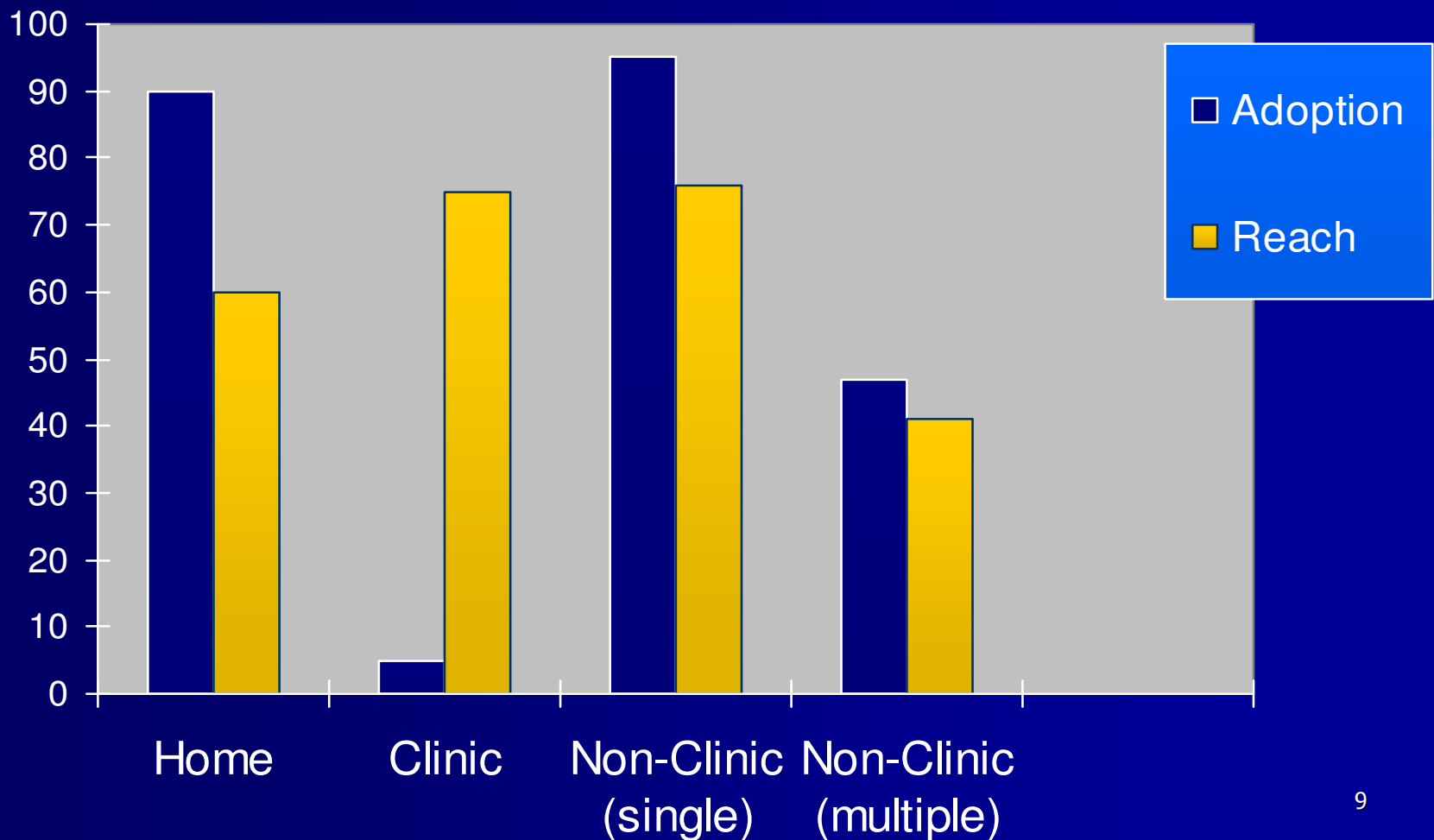
# Reach Compared

VENUE	N	PART. RATE	REPRESENTATIVE	
			Participated	Declined
Home (Web)	320	60%	Age 59 9.5 post-dx	Age 62 13.4 post-dx
Clinic	886	75%	Age 63 White, $\geq$ HS	Age 64 Latino, <HS
Non-Clinic (single)	320	76%	Age 60 White, $\geq$ HS	NS
Non-Clinic (multiple)	335	41%	Age 62 50% F	NS

# Adoption Compared

VENUE	N	DOC PART. RATE	REPRESENTATIVE	
			Participated   Declined	
Home (Web)	16	90%	PCP	NS
Clinic	52	5%	FFS, CHC urban, rural	NS
Non-Clinic (single)	40	95%	PCPs small group	NS
Non-Clinic (multiple)	42	47%	HMO multi-doc	Non-HMO single doc

# Reach & Adoption by Intervention Setting



# Discussion

- Program venues and study design produce trade-offs for patients and providers.
  - **Home and non-clinic based programs**  
Pros: reduce burden for clinical staff.  
Cons: limit access for some patients.
  - **Clinic-based programs**  
Pros: increase patient access and patient-provider communication; reinforce importance.  
Cons: clinician concerns re: reimbursement; staff time; and competing priorities.

# Translation Implications

- Use of interactive technology for self-management is effective for producing at least short-term behavior change.
- Optimizing **Reach** and **Adoption** may require **convenient access (home/clinic tradeoffs)**.
- **Effectiveness, Implementation** and **Maintenance** of such programs within primary care may require **integration of the assessment and action plan information into primary care** so it can be endorsed and reinforced by healthcare team.

**Thank You!**



# Self-Management Model

