

Preconception Care Case Studies

Demonstration of the Gabby PCC System

Best Start Resource Center Annual Conference
Hilton Toronto Airport & Suites
Mississauga, ON
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EXCEPTIONAL CARE. WITHOUT EXCEPTION.

U.S. Centers for
Disease Control and
Prevention,
Department of Health
and Human Services
2005

**Select Panel on
Preconception
Health and Health
Care**

**National Summit
on
Preconception Care
Select Panel Meeting**



June 21 - 22, 2005

The Atlanta Marriott Century Center
Atlanta, Georgia





MMWR™

Morbidity and Mortality Weekly Report

Recommendations and Reports

April 21, 2006 / Vol. 55 / No. RR-6

Recommendations to Improve Preconception Health and Health Care — United States

**A Report of the CDC/ATSDR Preconception Care
Work Group and the Select Panel
on Preconception Care**

INSIDE: Continuing Education Examination

**DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION**

- 3 national preconception summits
- In 2006, the CDC Select Panel put forth 4 goals, 10 recommendations, and more than 50 action steps for the national preconception initiative.

Workgroups

- Clinical
- Public Health
- Consumer
- Policy/Finance
- Research and Surveillance

Focus of the CDC Clinical Work Group - June '05 - present

- 1. What clinical conditions should be addressed as part of PCC?**
- 2. What is the evidence?**
- 3. How can the conditions be best identified?**
- 4. What interventions are available?**
- 5. How can we deliver this material in clinical practice?**

Content of Preconception Care: 2008

SUPPLEMENT TO

AJOG

American Journal of Obstetrics & Gynecology

The Gray Journal DECEMBER 2008 ■ Volume 199, Number 6B Founded 1869


**Preconception Health and Health Care:
The Clinical Content of Preconception Care**

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Health promotion

Immunization

Infectious disease

Medical conditions

Psychiatric conditions

Parental exposure

Family and genetic history

Nutrition

Environmental exposure

Psychosocial risk

Medication

Reproductive history

Special populations

Preconception Interventions Reviewed

Category

Potential Components of Preconception Care

Family planning

Physical Activity, Weight Status, Nutrient Intake, Folate, Immunizations, Substance Use, Sexually Transmitted Infections, Human Papillomavirus (HPV), Hepatitis B, Varicella, Measles/Mumps/Rubella, Influenza, Diphtheria/Tetanus/Pertussis (DTaP)

Infectious diseases

HIV, Hepatitis C, Tuberculosis, Toxoplasmosis, CMV, Listeriosis, Parvovirus, Malaria, Gonorrhea, Chlamydia, Syphilis, History of Genital Herpes, Asymptomatic bacteriuria, Periodontal disease, Bacterial Vaginosis, Group B Strep

Medical conditions

Diabetes, Thyroid Disease, PKU, Seizures, Hypertension, Rheumatoid Arthritis, Lupus, Renal Disease, Cardiovascular, Thrombophilia, Asthma

Psychiatric

Depression/Anxiety, Bipolar disease, Schizophrenia

Exposures

Alcohol, Tobacco, Illicit Substances

Family History

All Individuals, Ethnicity-based, Family history, Personal history

Nutrition

Dietary Supplements, Vitamin A, Folic Acid, Multivitamins, Vitamin D, Calcium, Iron, Essential Fatty Acids, Iodine, Underweight, Overweight, Eating Disorders

Environmental

Mercury, Lead, Soil and Water Hazards, Workplace Exposure, Household Exposure

Psychosocial Risks

Inadequate Financial Resources, Access to Care, Physical / Sexual Abuse

Medications

Prescription, Over-the-counter, Medication, Dietary Supplements

Reproductive History

Prior Preterm Birth Infant, Prior C-Section, Prior Miscarriage), Prior Stillbirth, Uterine Anomalies

Special Populations

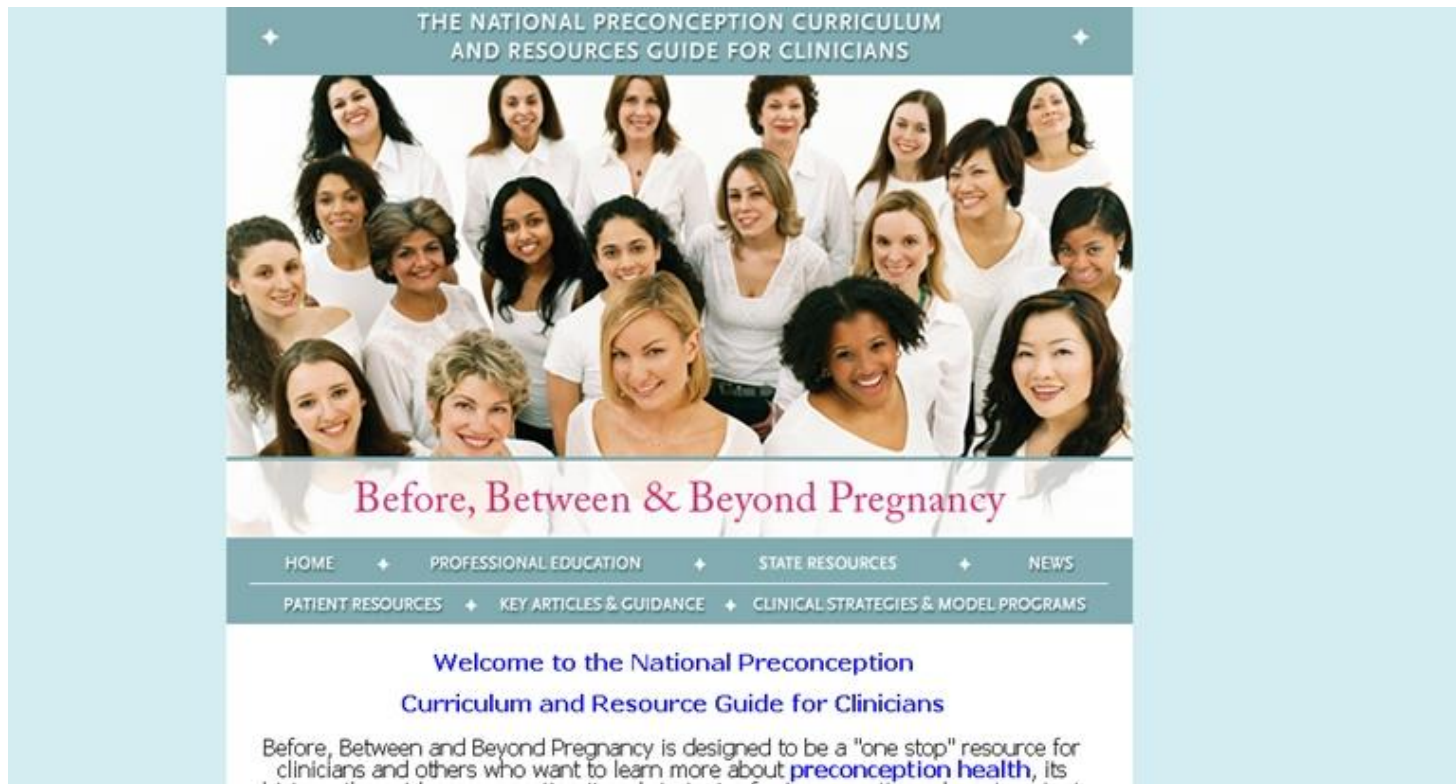
Women with Disabilities, Immigrant and Refugee Populations, Cancer

Each Component Presented in a Standard Format

- Burden of suffering
- How to identify
- Description of effective treatments
- Impact of treating in the preconception period.
- Recommendation
- Related recommendations by other groups.
- Strength of Recommendation + Quality of Evidence

Am J Obstet Gynecol Volume 199, Issue 6, 2008
Available as a full text and free download at:

<http://www.beforeandbeyond.org/>



THE NATIONAL PRECONCEPTION CURRICULUM
AND RESOURCES GUIDE FOR CLINICIANS

Before, Between & Beyond Pregnancy

HOME + PROFESSIONAL EDUCATION + STATE RESOURCES + NEWS
PATIENT RESOURCES + KEY ARTICLES & GUIDANCE + CLINICAL STRATEGIES & MODEL PROGRAMS

Welcome to the National Preconception
Curriculum and Resource Guide for Clinicians

Before, Between and Beyond Pregnancy is designed to be a "one stop" resource for
clinicians and others who want to learn more about **preconception health**, its

<http://www.beforeandbeyond.org/>

Now Introducing: Gabby

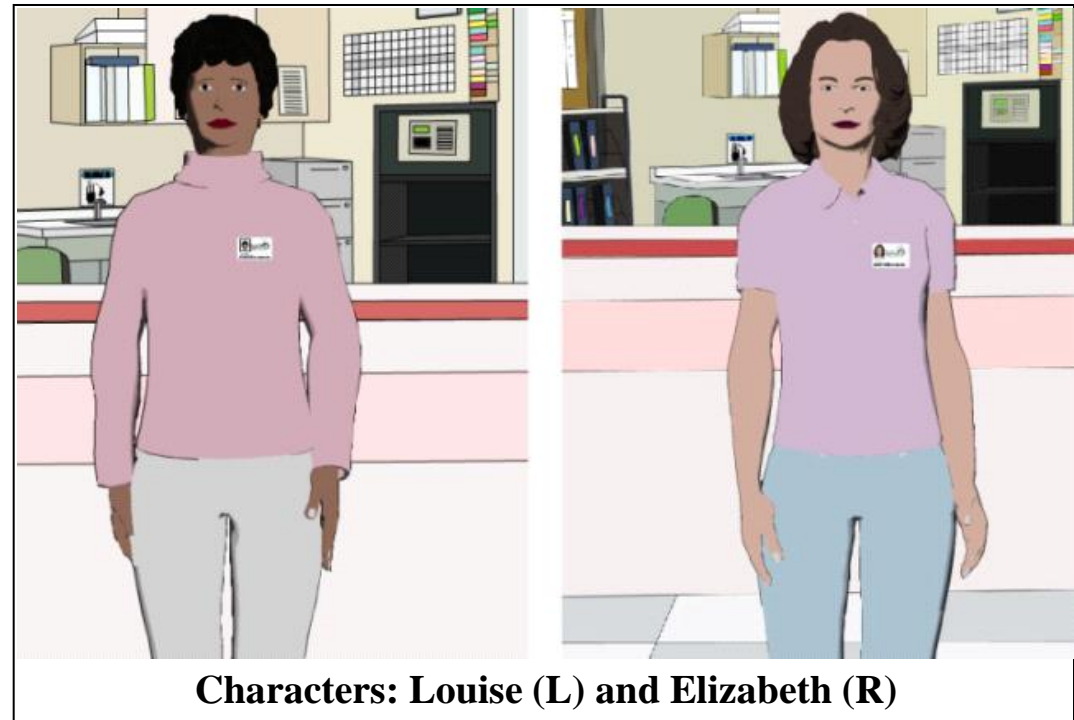


Using Health IT to Overcome Challenge of Clinician Time



Virtual Patient Advocates

- Emulate face-to-face communication
- Develop therapeutic alliance-empathy, gaze, posture, gesture
- Teach AHCP
- Tailored to Individual
- Do “Teach Back”
- Can drill down
- Print Reports
- High Risk Meds
 - Lovenox
 - Insulin



Characters: Louise (L) and Elizabeth (R)

Patient Interacting with Louise



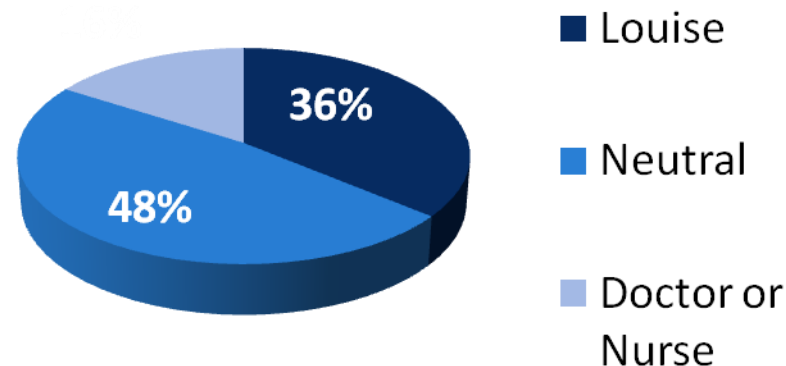
Twice as Many Pts Prefer Louise than RN/MD



“It was just like a nurse, actually better, because sometimes a nurse just gives you the paper and says ‘Here you go.’ Louise explains everything.”



“I prefer Louise, she’s better than a doctor, she explains more, and doctors are always in a hurry.”



Video: Meet Gabby

Preconception Care Project Demonstration



EXCEPTIONAL CARE. WITHOUT EXCEPTION.

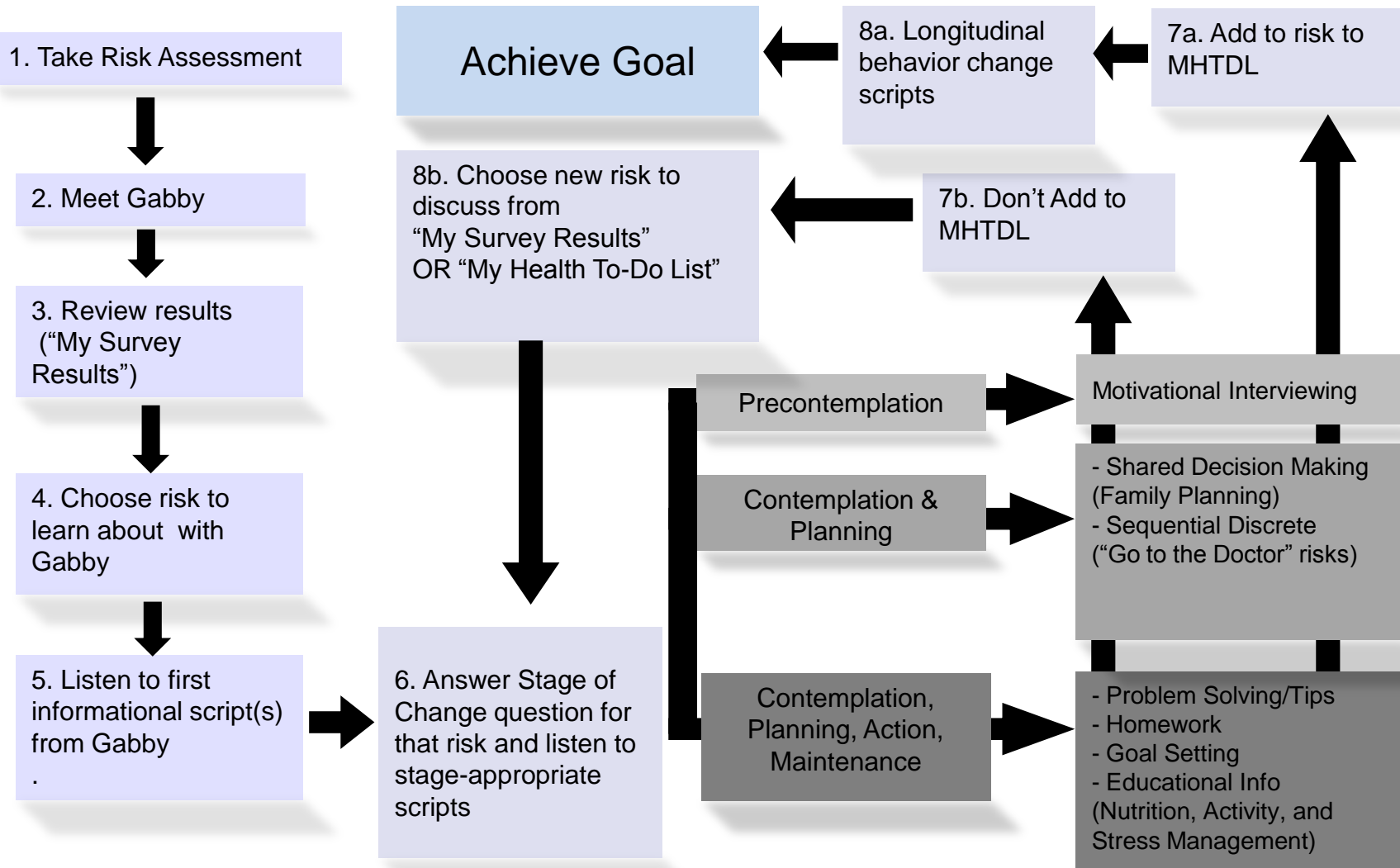


Relational
Agents
Group

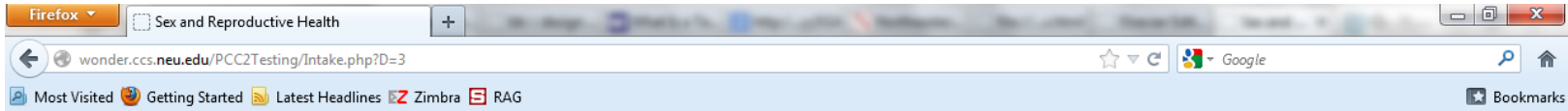


<http://www.bu.edu/familymed/programs-and-research/project-preconception-care/meet-gabby/>

Gabby Version 2



PCC Risk Assessment



Sex and Reproductive Health

1. Have you ever had sex, like vaginal intercourse, oral sex, or anal sex?

- Yes
- No

2. Do you use birth control on a regular basis?

- Yes
- No

2a. Check all the types that you use now.

- | | |
|--|---|
| <input type="checkbox"/> Birth control pills | <input type="checkbox"/> IUD |
| <input type="checkbox"/> Birth control patch | <input type="checkbox"/> Abstinence |
| <input type="checkbox"/> Birth control ring | <input type="checkbox"/> Implant |
| <input type="checkbox"/> Birth control shot | <input type="checkbox"/> Vasectomy |
| <input type="checkbox"/> Male Condom | <input type="checkbox"/> Spermicide |
| <input type="checkbox"/> Female Condom | <input type="checkbox"/> Morning after pill |
| <input type="checkbox"/> Withdrawal | <input type="checkbox"/> Rhythm/natural family planning |
| <input type="checkbox"/> Diaphragm | <input type="checkbox"/> Other |
| <input type="checkbox"/> Tubes tied | |

3. Do you want to have a baby in the next year?

- Yes
- No
- Don't Know

4. Have you ever been pregnant?

- Yes
- No

4a. How many times have you been pregnant? This includes all miscarriages and abortions.

4b. How many live births have you had?

4c. How many stillbirths have you had? This is when a baby dies in the womb after the 20th week of pregnancy.

4d. How many miscarriages have you had?

4e. How many times have you had a miscarriage after 14 weeks of pregnancy?

Version 1: Info + Advice About Identified Risks



Funding: Agency for Health Research and Quality # HHS290200600012I, TOO #7

V.1 Results of Gabby System Risks Reduced

Risks Identified (per woman)

23 (100%)

Risks Discussed

11 (48%)

Risks Added to MHTDL

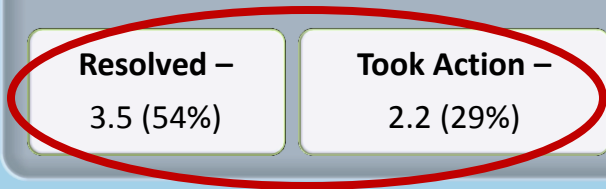
7.2 (65%)

Status at 2 months

Resolved –
3.5 (54%)

Took Action –
2.2 (29%)

No action –
1.5 (17%)



V.1 Results of Gabby System: Stage of Change

All Risks discussed with Gabby, n=67

Initial Stage	# risks (%)	Pre-contemplation	Contemplation	Preparation	Action / Maintenance
Pre-Contemplation	16 (23)	5 (31.2)	3 (18.6)	0 (0)	4 (25.0)
Contemplation	12 (17.9)	1 (18)	2 (8.3)	0 (16.7)	8 (66.7)

All Risks Discussed with Gabby and Added to MHTDL, n=43

Initial Stage	# risks (%)	Pre-contemplation	Contemplation	Preparation	Action / Maintenance
Pre-contemplation	1 (2.3)	0 (0)	0 (0)	0 (0)	1 (100)
Contemplation	11 (25.5)	1 (9.1)	2 (18.2)	0 (0)	8 (72.7)

- Gabby best at moving those in “Contemplation” to “Action/Maintenance”
- V2 programming to move from “Pre-contemplative” to “Contemplative”

Gabby Version 2: New Content

Longitudinal behavior change:

- Motivational Interviewing to reach out to precontemplators
- Shared Decision Making to assist with complicated decisions (i.e. contraceptive choice)
- Problem Solving to provide solutions to common barriers
- Goal setting to provide long-term motivation
- Homework to keep users engaged outside of system
- “Sequential Discrete” to walk users through processes step-by-step (i.e. making and going to a healthcare appointment)
- Tips, Direct Observation, Social Reinforcement, etc

Supporting the user with information, tools, and encouragement throughout the behavior-change process

Funding: HRSA B-MCH: R40 MC21510

V2 Results: Risks Identified & Resolved

	N	Mean Identified	% Risks Resolved	Mean Resolved	Std Dev
Control	43	24.2	20.5	5.5	4.4
Intervention	36	23.2	27.8	8.3	4.5

p < 0.05

>25% Reduction in Risks by Gabby compared to Taking Risk list to a clinician

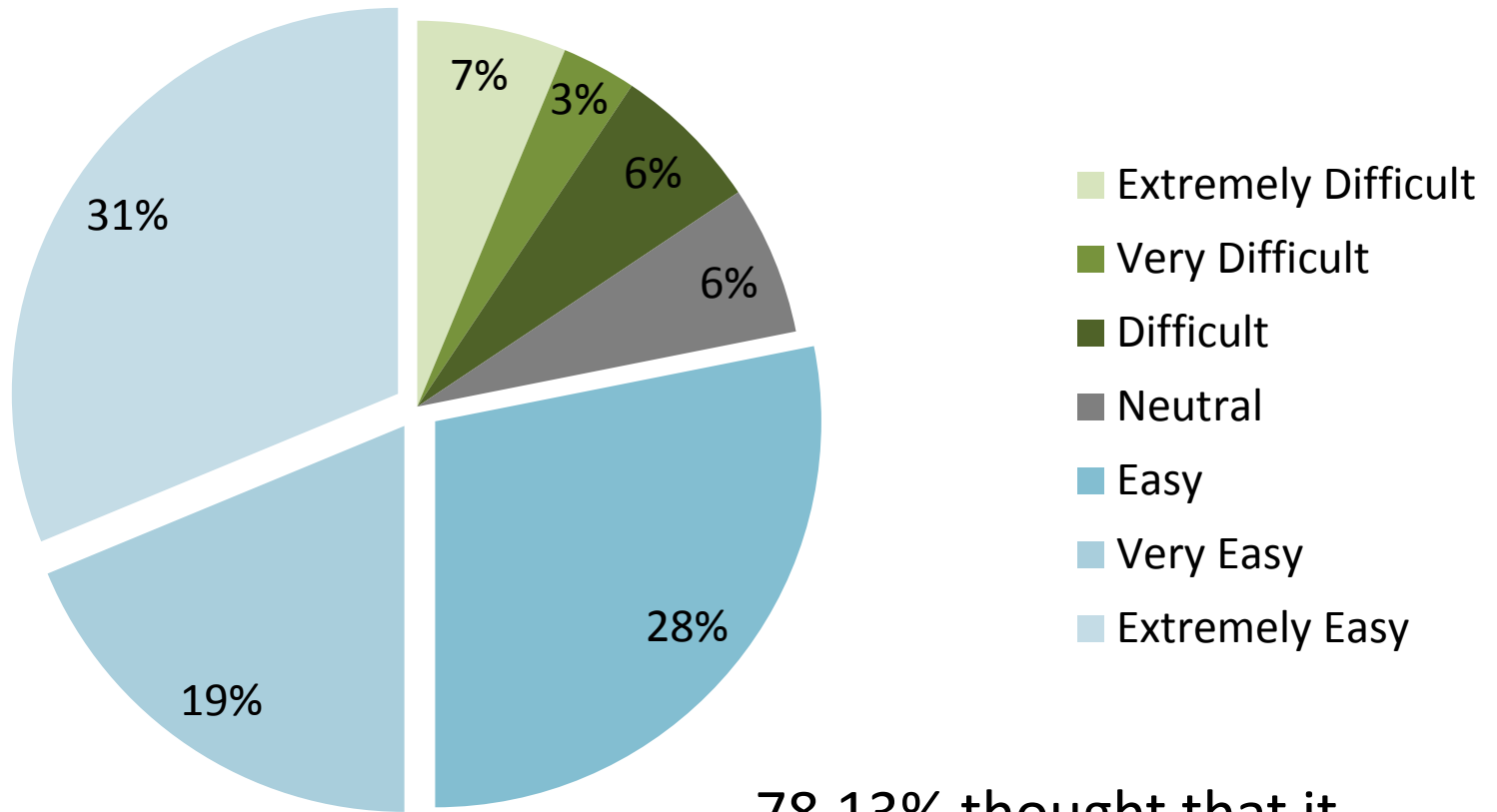
Those who had access to Gabby resolved approximately **3 more risks** than those who did not.

V2 Results: Knowledge Scores, Nutrition and Contraceptives

	Controls			Interventions			p-value
	Baseline Score (% correct)	6-month Score (% correct)	% Increase	Baseline Score (% correct)	6-month Score (% correct)	% Increase	
Nutrition	78.23	80.23	1.16%	78.66	87.39	9.01%	0.06

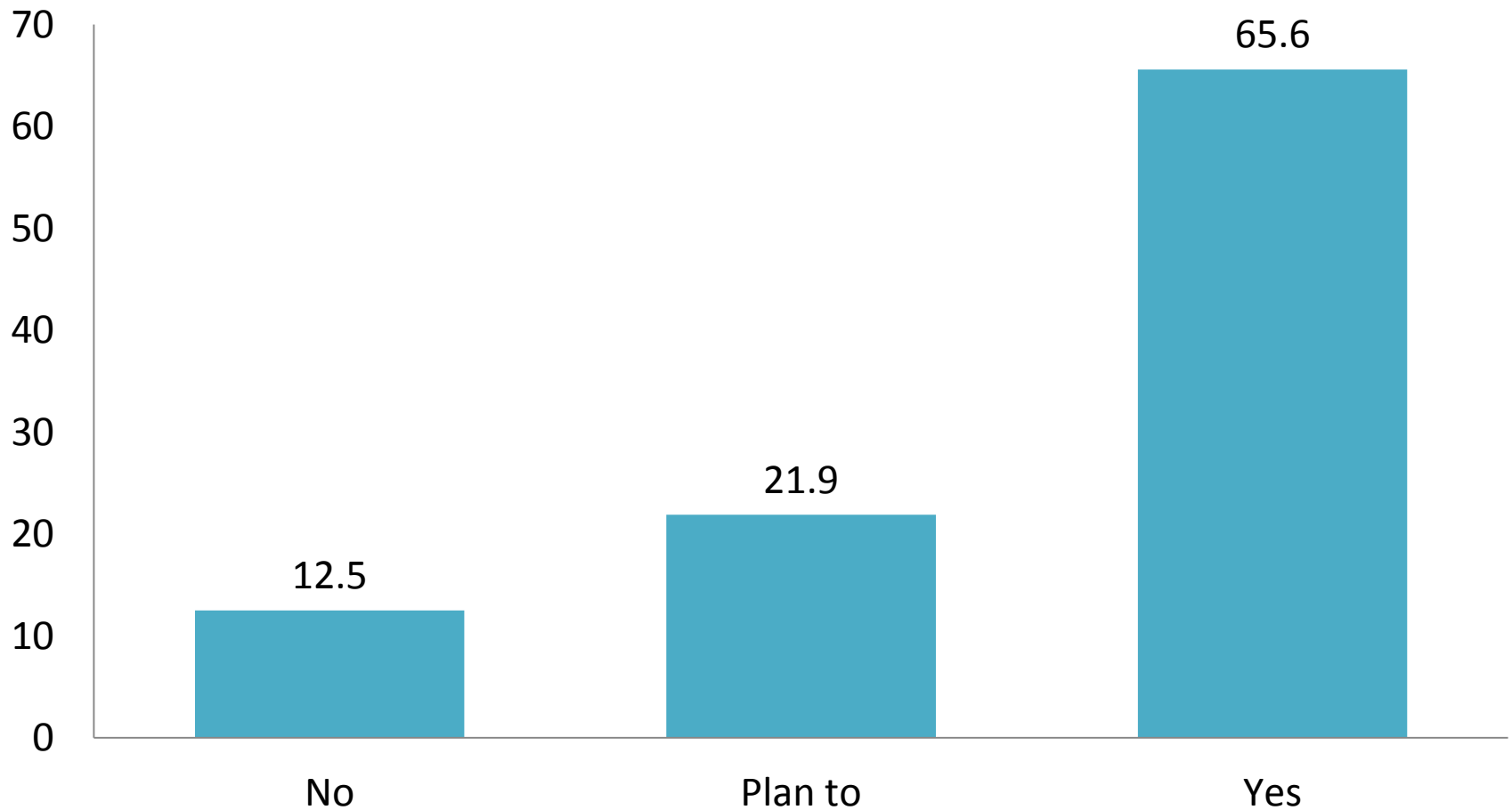
Those who talked to Gabby increased their Nutrition knowledge score by an average of **9%**, while Controls saw an increase of **1.16%**.

How easy was it to talk to Gabby?

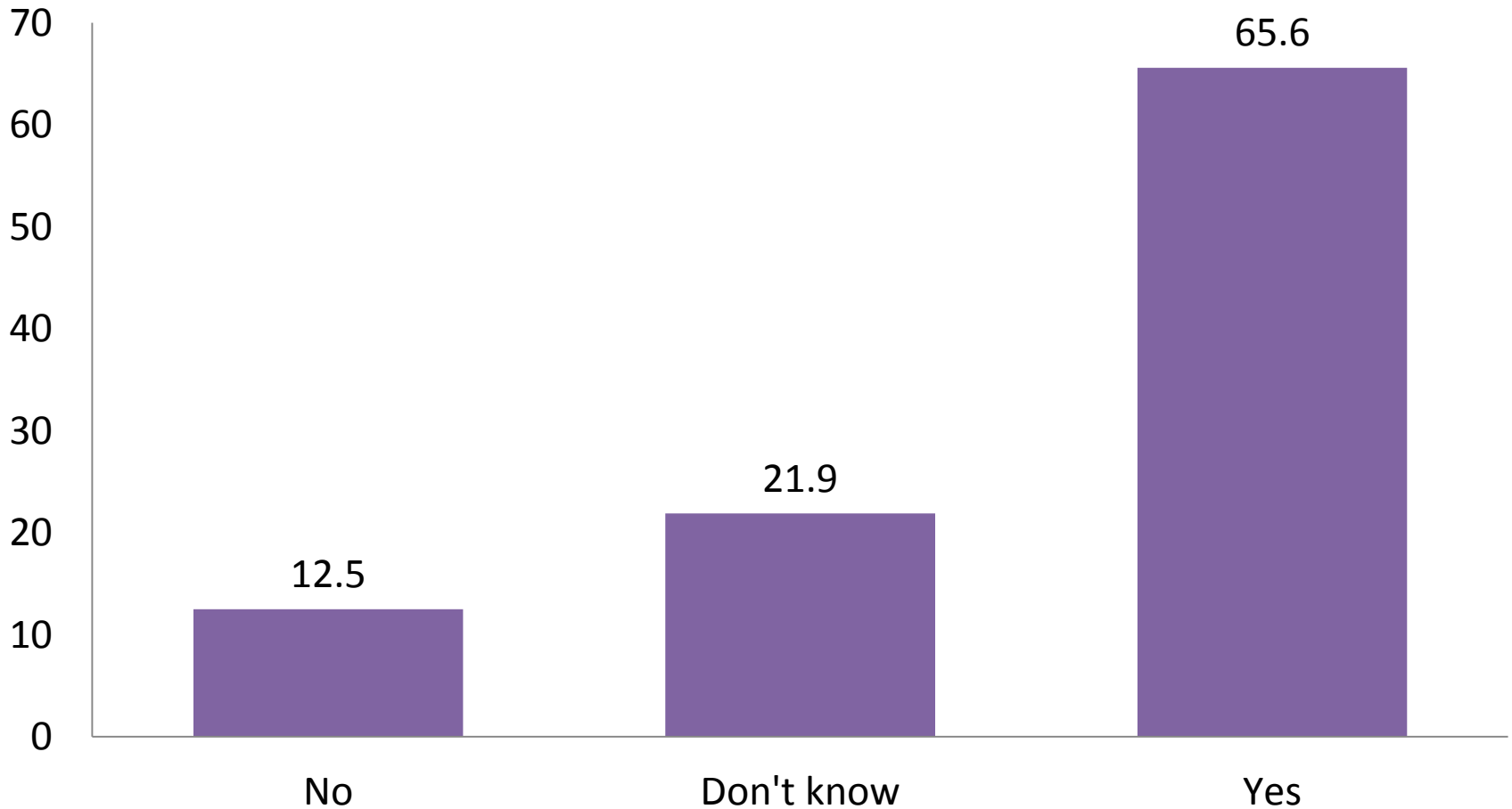


78.13% thought that it was easy to talk to Gabby

Have you used info from Gabby to improve your health?



Would you recommend Gabby to someone you know?



What's next?

RCT of 530 participants (NIMHD, R01MD006213)

- Enrollment began March 2014
- National sample, enrolled via phone
- One-year intervention period

Kellogg Foundation (P3024018) – 2 years of development to Prepare for Implementation at Healthy Start Sites

- Comprehensive content overview and update
- Expand Family Planning Discussion
- Make connections between risks to leverage past success

PCC for Men – Administrative Supplement from HRSA-BMCH

- Created a Men's Health Survey; focus groups (n=17); pilot testing (n=29)
- Create Gabe