

# Barriers to Preconception Planning Among Health Care Professionals Who Treat Women with Diabetes

David B. Winmill, DNP, CDE, BC-ADM, Joan Ware, BSN, MSPH, Linda Griffen, BA, CCRC, Angela Deneris CNM, PhD, FACNM, and Brenda Ralls, PhD

making

a

healthy

start

Pre-conception counseling for women with diabetes is education that specifically emphasizes the importance of making healthy lifestyle choices and obtaining good blood sugar control prior to conception.

## Components of Pre-conception Care in Diabetes:

1. Good blood sugar control (H<sub>g</sub>A1C < 6.9%) for 6 months prior to conception.
2. Use of effective birth control until blood sugar is well controlled.
3. Identification and management of diabetes complications (*retinopathy, nephropathy, neuropathy, and cardiovascular disease*).
4. General health maintenance
  - a. Screening and management of dental health (*caries, gingival disease*)
  - b. Adequate nutrition (*including folic acid supplementation*)



## Background

- Pregnancy complications are higher for women with diabetes
- Women with diabetes have an increased risk for hypertension and eclampsia
- Developing fetuses are at increased risk for congenital anomalies, polyhydramnios, pre-term delivery, and death.
- Damage from hyperglycemia usually occurs in the first 7-8 weeks of pregnancy, often before a woman even knows she is pregnant
- Pre-conception counseling for women of child-bearing age is often overlooked as part of comprehensive diabetes care

## Methods

- In September, 2009, the University of Utah, College of Nursing, and the Utah Diabetes Prevention and Control Program, conducted an online survey of more than 100 health care professionals who treat women with diabetes
- Information was obtained about the rate of pre-conception counseling provided by occupation, barriers to pre-conception counseling, along with recommendations for improving its implementation



## Results

- 69 health care professionals completed the survey
- More than one-third (36.2%) reported they did not provide pre-conception counseling (**Figure 1**)
- Physicians, Nurse Practitioners, and especially Certified Diabetes Educators were most likely to provide pre-conception counseling (**Figure 2**)
- Barriers included lack of patient education materials, inadequate staff training and lack of reminder prompts (**Figure 3**)

Figure 1. Percentage of Health Care Providers Providing Pre-Conception Counseling for Reproductive-Age Women with Diabetes

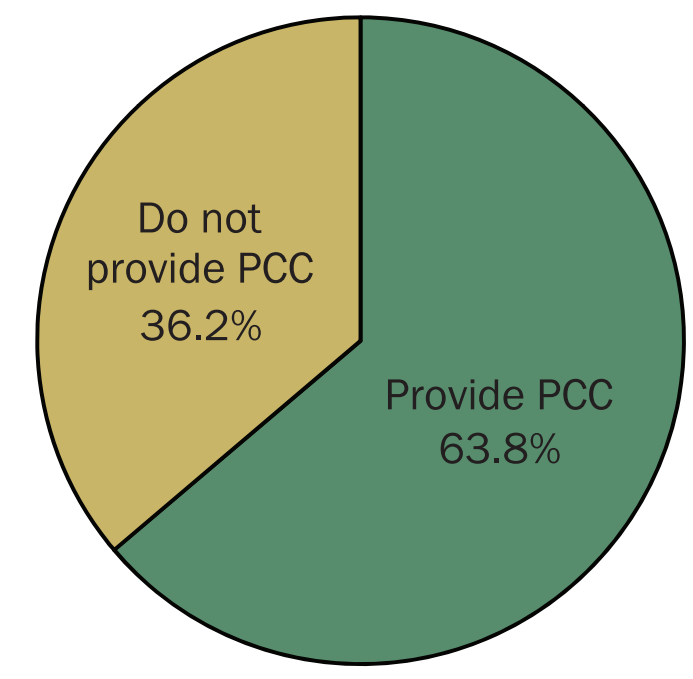


Figure 2. Percentage of Health Care Professionals Who Provide Pre-Conception Counseling to Reproductive-Age Women with Diabetes by Occupation (More Than One Response Possible)

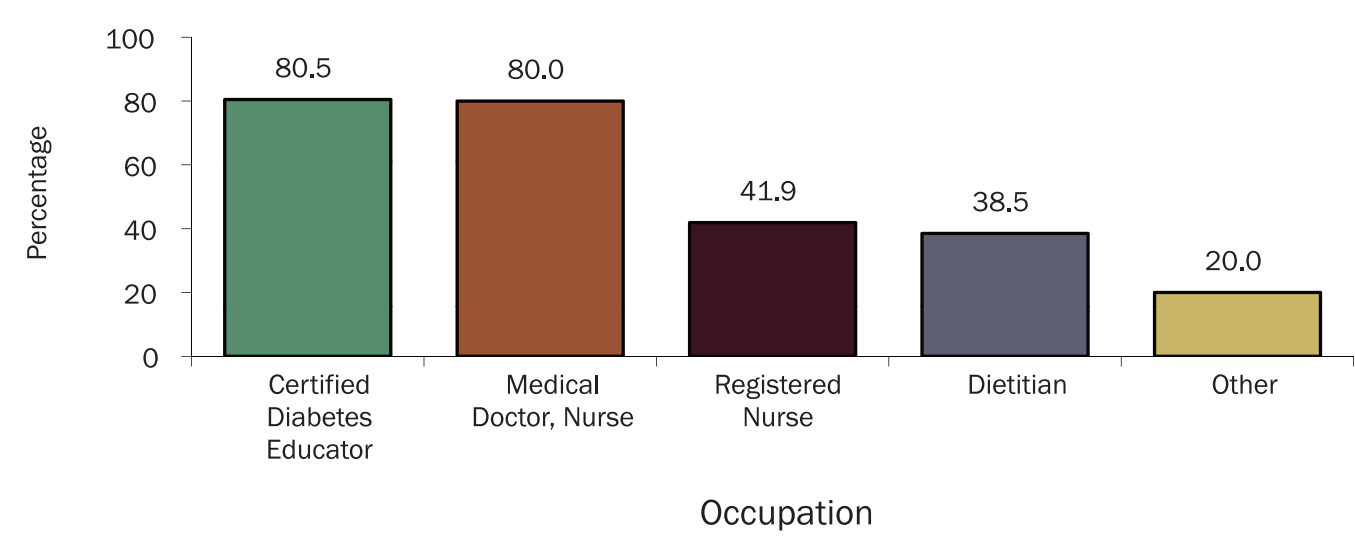
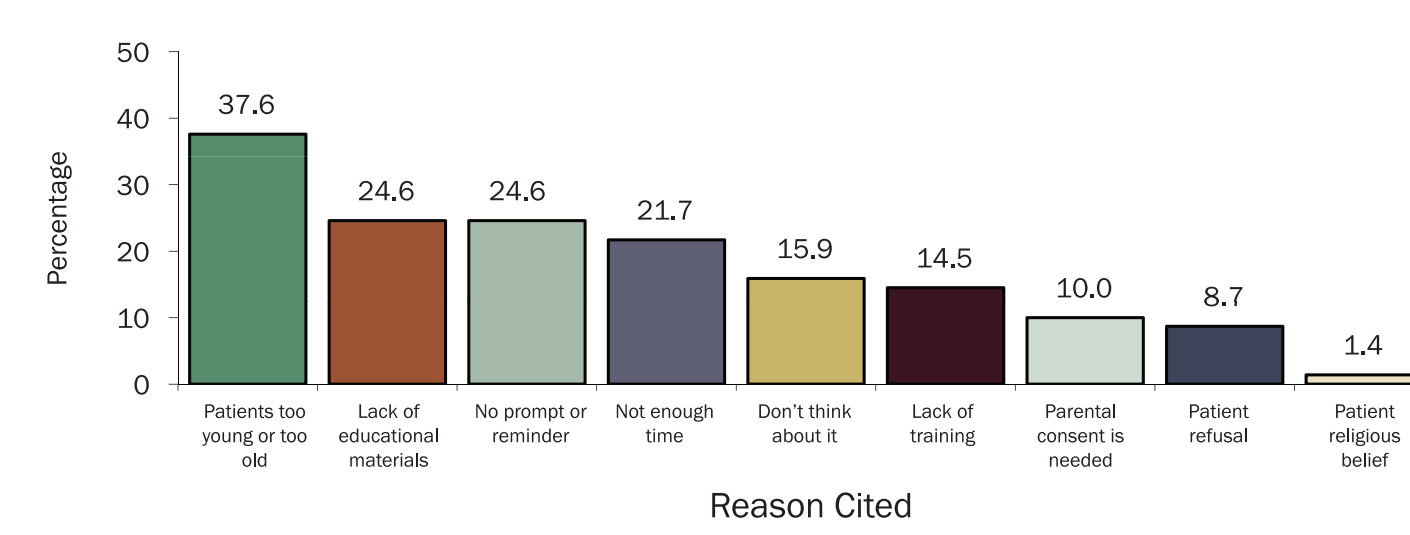


Figure 3. Major Barriers to Providing Pre-Conception Counseling to Reproductive-Age Women with Diabetes Cited by Health Care Professionals (More Than One Response Possible)



## Implications

- Survey findings indicated the need for educational brochures for patients
- Prompts have been added to medical records for women with diabetes of reproductive age in some medical facilities, reminding health care professionals to discuss the importance of blood sugar control prior to (and during) pregnancy
- Educational brochures for patients and providers have been developed

