SMOKING and DIABETES in Newberry County

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Smoking and Diabetes: what is the connection?

- Smoking is considered a major risk factor for worsened control and increased complications in diabetics (heart disease, stroke, peripheral vascular disease, renal disease, neonatal morbidity and mortality) (Goldman, Cecil Textbook of Medicine, 21st ed 2000)

Smoking and Diabetes: Impact on Newberry County

- Diabetes is the 6th leading cause of death in South Carolina and resulted in $ 5.7 million in hospital charges in Newberry County in 1997. (SC DHEC Report, 1998)
- Smoking causes more deaths than AIDS, alcohol, automobile accidents, drugs, fires, homicide and suicide combined. (JAMA, 1993)
- In Newberry County, 23.3% of diabetics were reported as current smokers. This means smoking is more common in diabetics than is hypertension (20.2%). (SC DHEC Report, 1998)

AIMS

- Improve awareness of smoking issues in diabetics by at least 80% in participants that conclude two sessions.
- Achieve a 50% rate of interest in smoking cessation

MEASURES

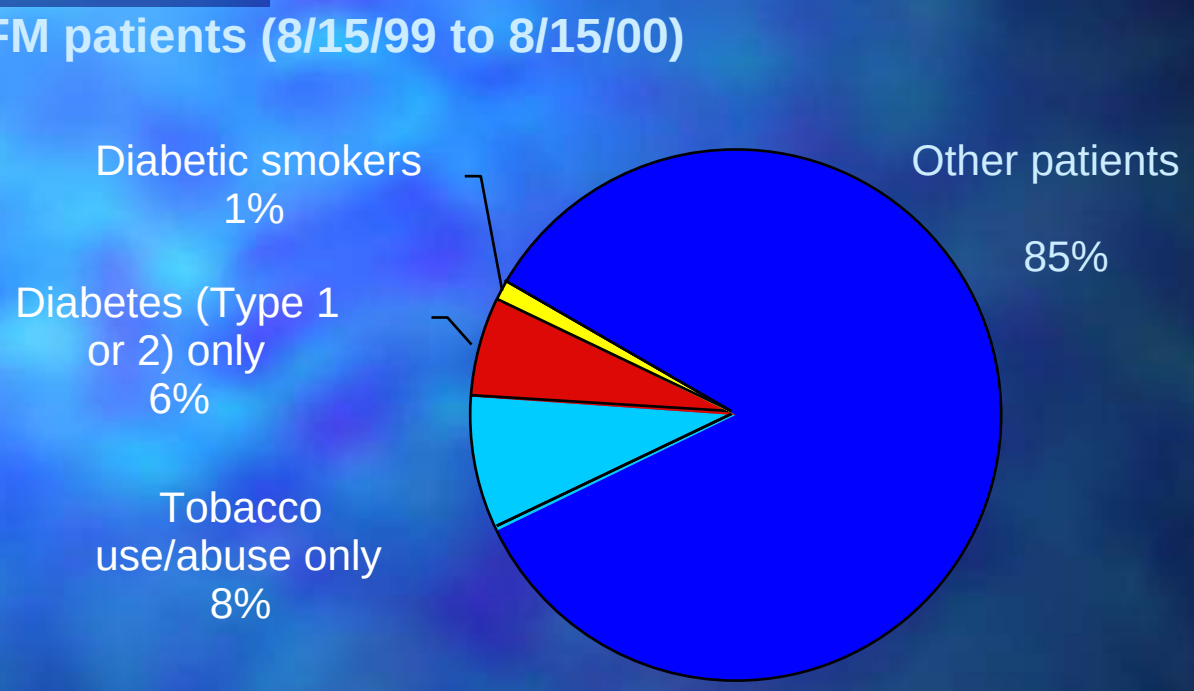
- Identification of the patient population at LFM targeted by this program
- Outreach to targeted population
- Two 30-minute educational sessions on risks of smoking in diabetic patients and resources for smoking cessation
- Two questionnaires on material covered in sessions and on desire to quit smoking

PDSA cycle 1: Identify the concerned population

- Plan: select patients at LFM for 1) current patients 2) diabetics (type I and II) 3) smokers 4) Newberry area.

- Do : Found codes for tobacco abuse, tobacco use, all types of diabetes. Defined current patients as seen within last year with pulse rate >0. Eliminated gestational diabetes and patients out of 15 mile radius.

PDSA cycle 1: Identify the concerned population



- Study: 5562 patients were seen at LFM last year. 522 were reported as having a problem with tobacco (codes 305.1 and 305.11), 409 had a type of diabetes (250 codes). 14.7 % of diabetic patients in the last year were diagnosed as having a problem with tobacco.

PDSA cycle 1: Identify the concerned population

- Act: Call the 60 patients who were coded for both diabetes and tobacco abuse and inform them about the smoking cessation program.

PDSA cycle 2: Outreach

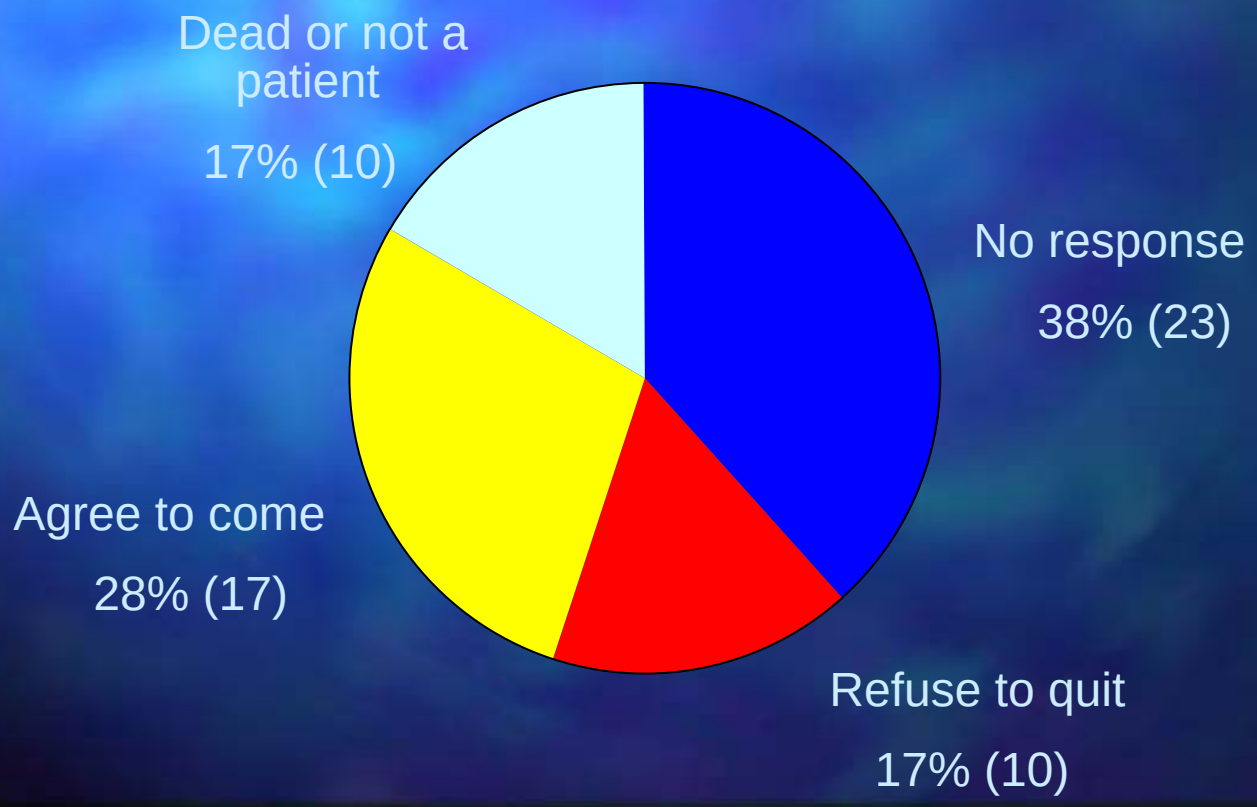
- Plan: call all patients selected in Cycle 1 as diabetic smokers and ask them to attend evening sessions on smoking cessation and special risks of diabetic patients.

- Do :generate phone list and call all patients. If No response try at least three different times during the day. Record responses.

PDSA cycle 2: Outreach

- Study :

Diabetic smokers at LFM: phone responses



PDSA cycle 2: Outreach

- Act: Prepare two instructional sessions with presentations as well as questionnaires to educate the patients who said they would attend.

PDSA cycle 3: Diabetes and smoking education

- Plan: Educate all patients attending on the impact of smoking in diabetics and assess their desire to quit.

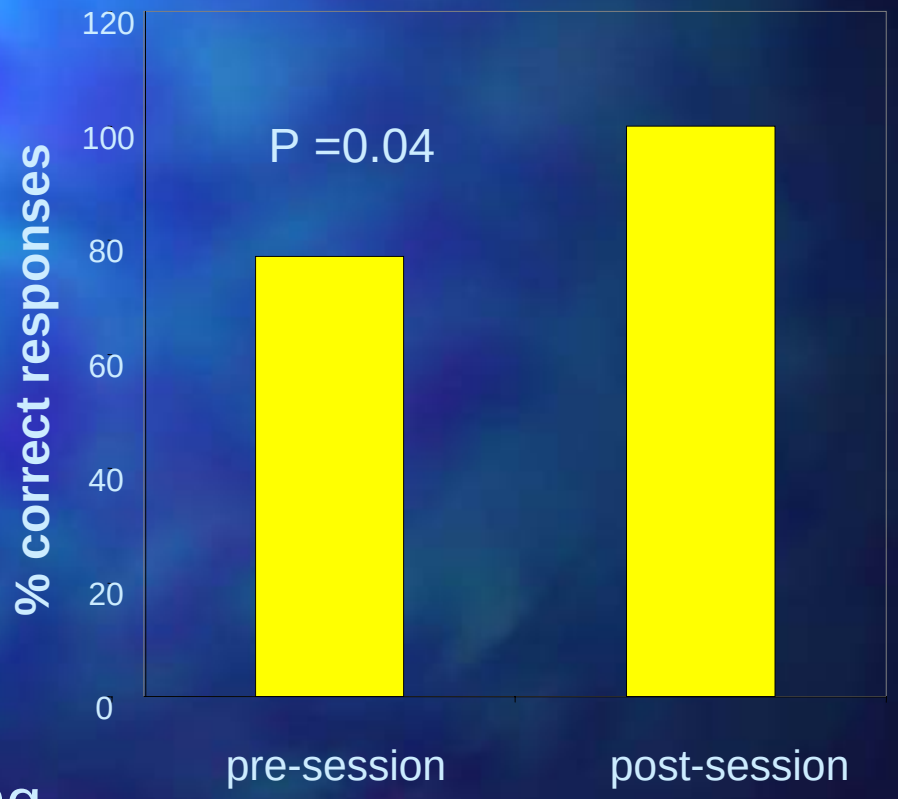
- Do :Have patients fill out a pre and post session questionnaire on the impact of smoking on diabetes, hold a 15 minute powerpoint presentation, have a 10 minute question and answer session .

PDSA cycle 3: Diabetes and smoking education

- Study

Session 1 attendance

Educational goals for session 1



100% patients want to quit
100% patients want help quitting

29% improvement

PDSA cycle 3: Diabetes and smoking education

- Act: Encourage patients to attend session 2 to build on their knowledge and to educate them about smoking cessation.

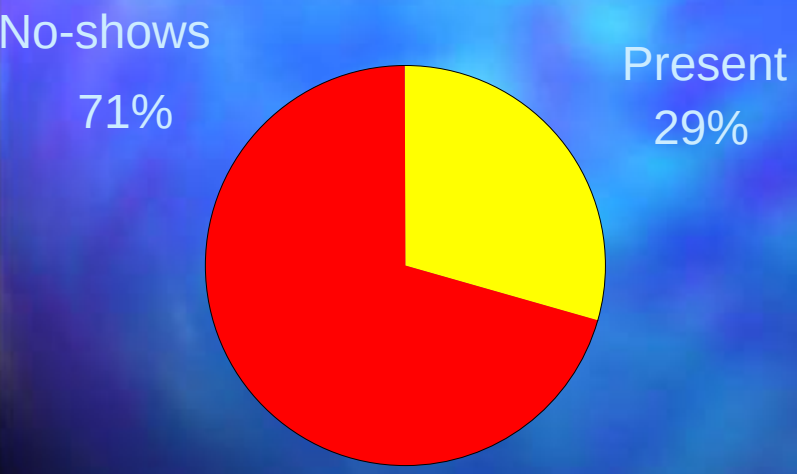
PDSA cycle 4: Smoking cessation education

- Plan: Educate all patients attending on the impact of smoking cessation and methods to quit smoking.

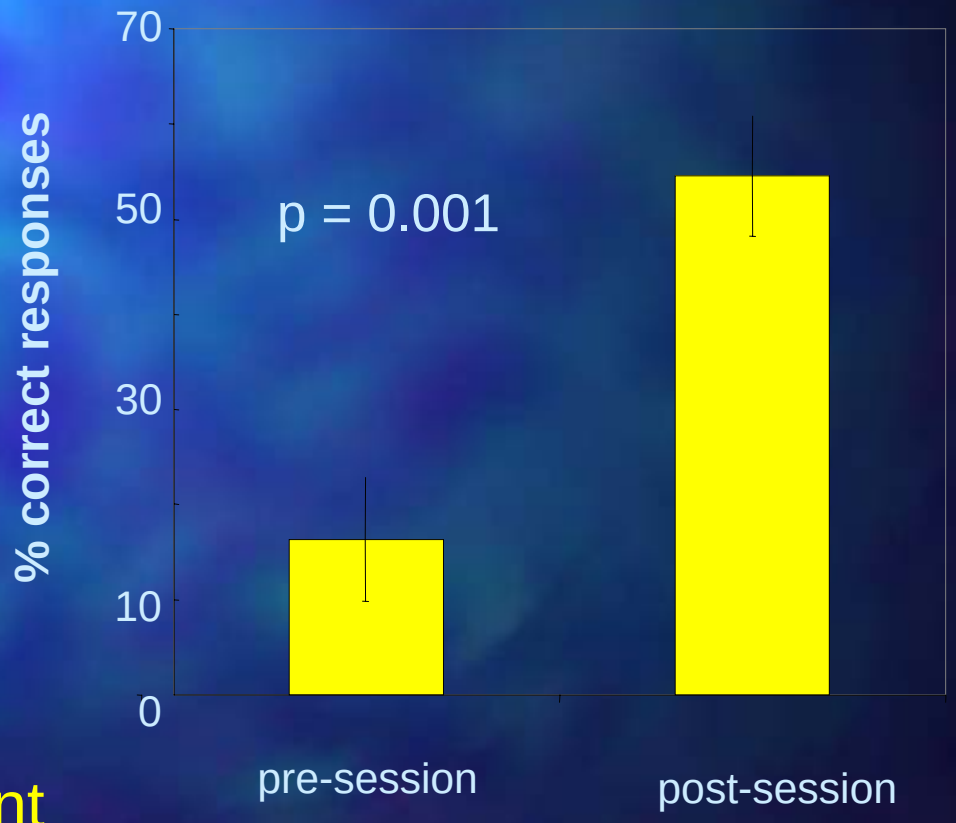
- Do :Have patients fill out a pre and post session questionnaire on the impact of smoking cessation, hold a 15 minute powerpoint presentation, have a 10 minute question and answer session .

PDSA cycle 4: Smoking cessation

Session 2 attendance



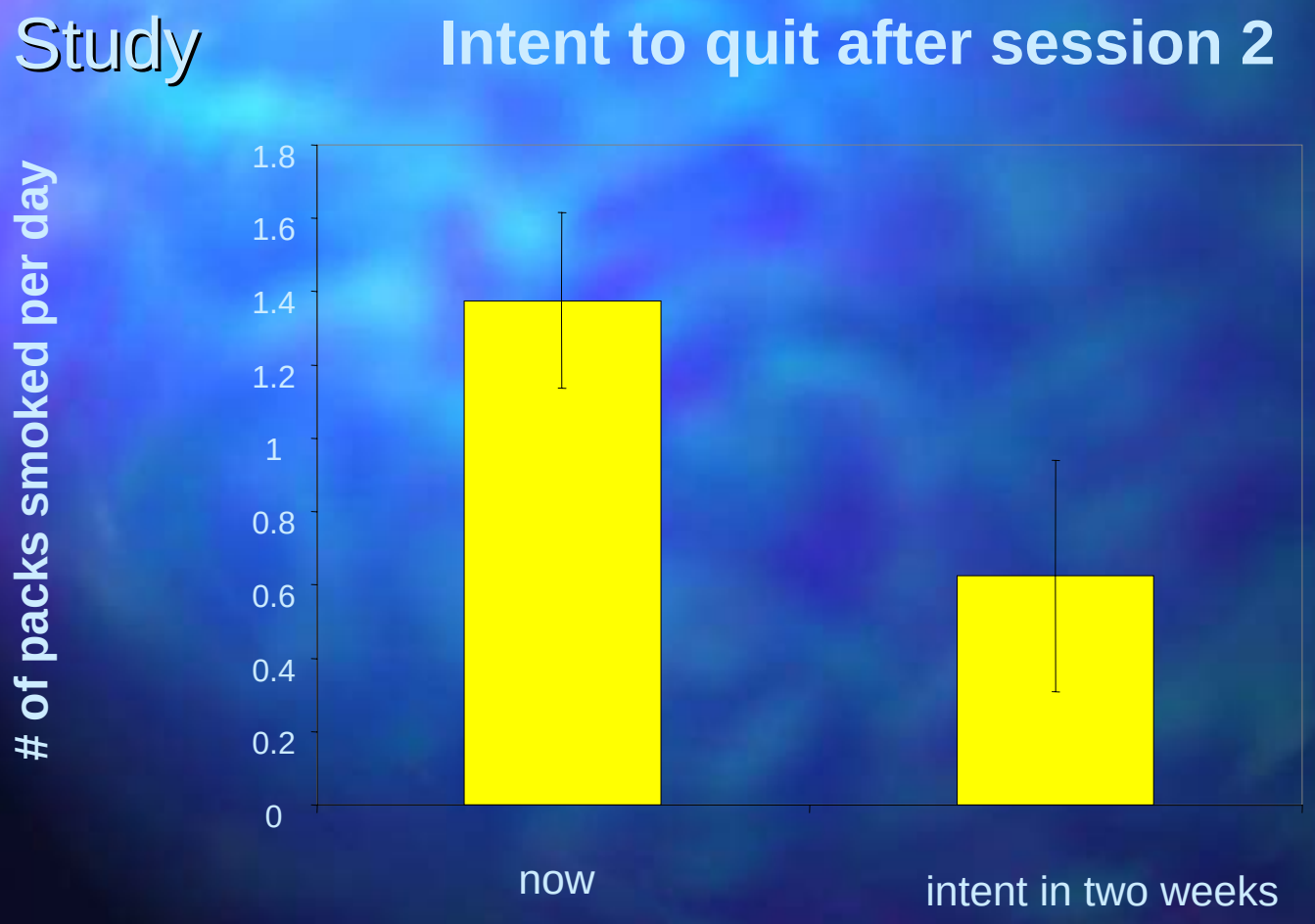
Educational goals for session 2



233% improvement

PDSA cycle 4: Smoking cessation

- Study



P =0.001

Intent to decrease by 54.5%

PDSA cycle 4: Smoking cessation

- Act: Patients have met aims for both improved education and desire to quit. The next steps would be to
  - 1. Expand the outreach to the patients with no response.
  - 2. Correct the database and code patients who smoke.
  - 3. Repeat this program in the corrected database.
  - 4. Follow up on the number of smoking cessation appointments.

FINAL COMMENTS

- There is a vast difference between a patient's intent to quit and there actual course of action.
- A direct approach to contacting patients works better than general advertising in the community.
- The literature suggested that diabetic patients are motivated to smoke and are better educated about the consequences of smoking. This was found to be true in Newberry county.
- The aims were achievable in this particular population