

# A WEB BASED SELF-MANAGEMENT SITE FOR PATIENTS WITH TYPE 2 DIABETES—SYSTEMATIC WEBSITE DEVELOPMENT AND STUDY PROTOCOL

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Zemel et al., The American Journal of Clinical Nutrition. 2010;91:16-22.

# DEFINITIONS

- Type 2 Diabetes : blood glucose levels to rise higher than normal due to insulin resistance.
- Seventh leading cause of death in U.S

29.1 million Americans, or 9.3% of the population have diabetes 86 million Americans age 20 and older had prediabetes

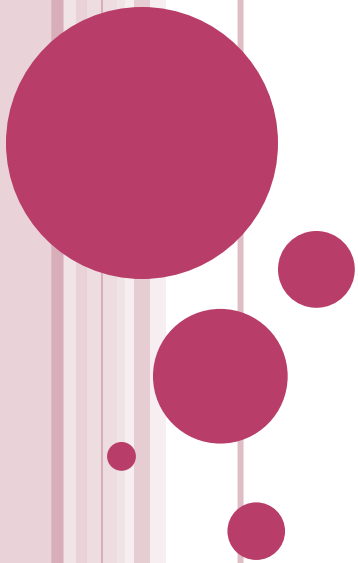
- Complication; Hypoglycemia, Hypertension, Dislipidemia, CVD death, blindness and eye problem,
- Stroke, Heart Attack

# BACKGROUND/INTRODUCTION

patient self-management training is one important strategy

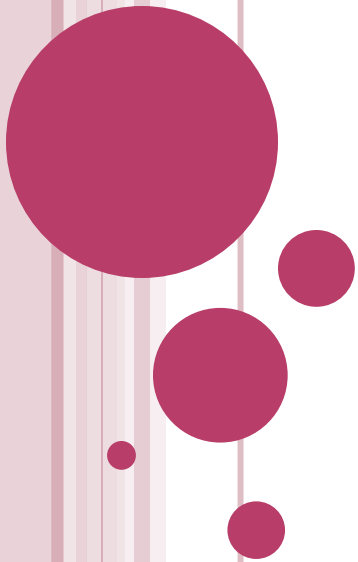
Participation in self management programs is low

- Consumers are increasingly accessing the World Wide web as sources of health information but self management principle has not been added in existing diabetes website.
- So web based self management intervention have potential bridge the gaps in diabetes care and self –management.



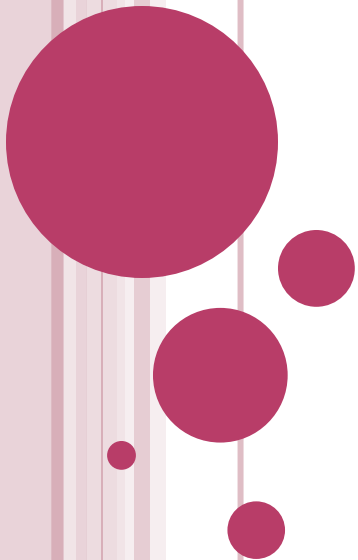
# OBJECTIVE

- To limit risk factors ,promote healthy behavior
- Bridge the gaps in diabetes care and self management



# STUDY OVERVIEW

- Phase 1 intervention development
- phase 2 feasibility testing
- Phase 3 usability testing
- Phase 4 intervention refinement
- Phase 5 intervention evaluation



## PHASE 1 INTERVENTION DEVELOPMENT

- tools that were known to be effective
- incorporated behavioral intervention strategies
- use knowledge to action framework of self efficacy in formatting sites.



## PHASE 2 FEASIBILITY TESTING

- use focus group methodology
- Participants who will be asked to work through the web based tool to complete a task that simulate real clinical use



## PHASE 3 USABILITY TESTING

- Using cognitive task analysis

## PHASE 4 INTERVENTION REFINEMENT

Following usability testing , further refinements will be made to the website in a process of testing and redesign





## PHASE 5 INTERVENTION EVALUATION

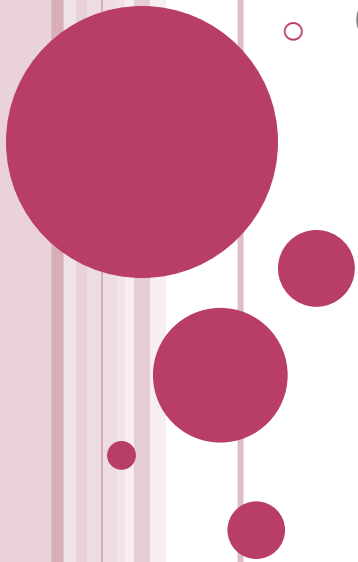
-hypothesis ;this intervention will result in improvement in self care score, self-efficacy score, quality life score with type 2 diabetes patients with access to the internet.



# OBSERVATIONAL COHORT STUDY

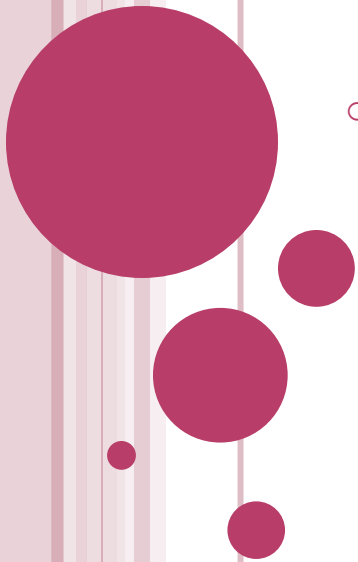
## Participants

- adults aged >25 years
- Hemoglobin >7.0%
- Systolic blood pressure >130mmhg
- BMI >25kg/m<sup>2</sup>
- Cholesterol >2.0mmol/L



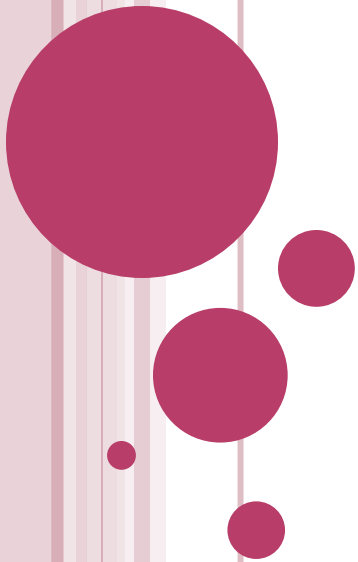
# OUTCOME

- Self –care behavior will be assessed
- Self-care efficacy will be assessed
- Diabetes-specific quality of life will be assessed
- HbA1c, systolic, and diastolic blood pressure, LDL, weight will be collected every 3 months
- Data collection
  - questionnaires
  - Hospital medical records
  - Web server log analysis
  - Interview



# CONCLUSION

- Promising because they target patients behavior directly
  - Inexpensive to maintain
- Based on theoretical foundation of self –efficacy ,which have been demonstrated to predict and promote behavior change
- Aim to address limitations by assessing effectiveness, addressing usability errors, identifying problems associated with website use



QUESTIONS?

