

HEALTHCARE DISPARITIES: CLOSING THE PROCESS- OUTCOME GAP

Minority Health Committee
October 2010





The Challenge

- Racial and ethnic minorities are among the fastest growing of all communities in the country
- Comprise 34% of the total US population (US Census Bureau 2006)
- Significant evidence of poor health outcomes with respect to premature death and preventable disease
- Poor health outcomes reflected in the pervasiveness of health care disparities among minorities

HHS Office of Minority Health. A Strategic Framework for Improving Racial/Ethnic Minority Health and Eliminating Racial/Ethnic Health Disparities (The Framework)



The Challenge

- Prevalence of hypertension is nearly 40% greater in African Americans than in Whites
- Higher incidence of coronary heart disease, heart failure, stroke, and renal disease
- African Americans, American Indians, Alaska Natives, and hispanics are on the average TWICE as likely to have diabetes than Whites
- African Americans are 21% more likely to die from all types of cancer than Whites



The Challenge

- Hispanic women are twice as likely to be diagnosed with cervical cancer than non-Hispanic white women
- Asian American men suffer from gastric cancer 93% more than non-Hispanic white men



Our Goal

- Improve healthcare access and delivery among minorities
- Close the process-outcome gap
 - Diabetes
 - Coronary artery disease
 - Cancer

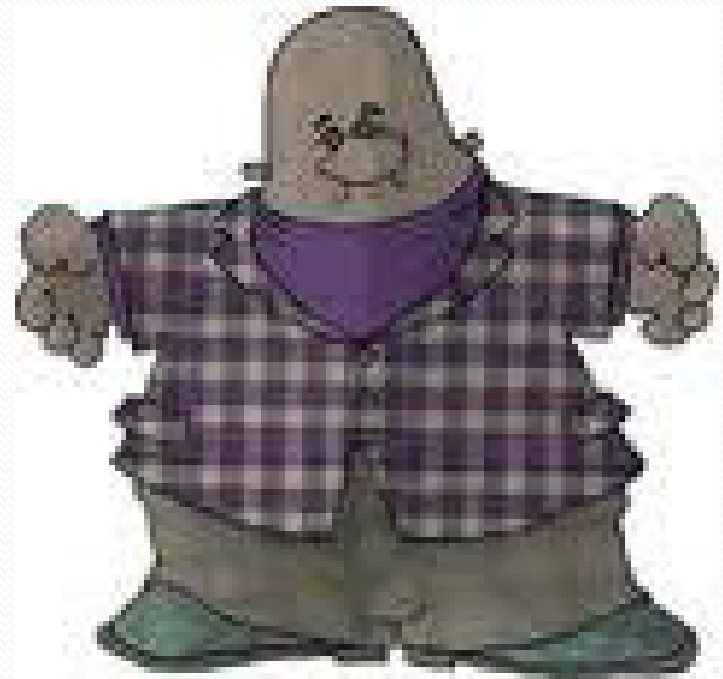


The Framework



Case Presentation

- 52 year old African American male presents to his primary care internist complaining of:
 - Increased fatigue
 - Headache
 - Intermittent chest pain
 - Weight loss
 - Urinary frequency
 - Heme positive stool





Case Presentation

- Symptoms began approximately 10 months ago
- Progressively worse over the last two months
- Semi-compliant with medications for diabetes and hypertension
- Blood pressure and blood sugar poorly controlled
- Takes nitroglycerin as needed for chest pain
- Admits to 25 pound weight loss, abdominal pain, and occasional blood in his stool



Case Presentation

- Past Medical History:

- HTN
- CAD
- DM₂
- Morbid Obesity
- Diabetic foot ulcers
- PVD
- BPH
- OSA
- GERD

- Past Surgical History:

- Inguinal herniorraphy
- Cholecystectomy
- Appendectomy

Case Presentation

- Social History:

- 1 ppd tobacco
 - Since age 16
- Etoh
 - 2-3 drinks/day
 - 6 pack sat/sun
- Caffeine
 - 6 cups of caffeinated coffee/day
- No illicit



- Family History:

- Married for 20 years
 - 7 children
- Mother
 - 70 yo with cad, htn, dm2
- Father
 - Deceased
 - Cad, colon cancer
- 2 sisters
 - Morbid obesity, htn, dm2
- 3 brothers
 - Etoh abuse, htn, dm2

Case Presentation

- Occupation
 - Travelling sales manager 12-16 hours/day
 - Basketball coach on weekends
- Travel history negative
- No pets
- Allergies
 - Bee stings
 - Aspirin
- Medications
 - Diovan
 - Glucotrol
 - Insulin
 - Lasix
 - Proscar
 - Plavix
 - Metoprolol
 - Protonix
 - Albuterol prn





Case Presentation: ROS

- Headaches
- Chest pain
- Shortness of breath
- Chronic cough
- Weight loss
- Numbness/tingling in lower extremities
- Urinary frequency
- Reflux
- Belching/bloating
- Early satiety
- Incomplete evacuation of bowels
- Constipation
- Insomnia
- Daytime hypersomnolence
- Decreased concentration/vigilance
- Difficulty ambulating



Laboratory Data

- ABG 7.42/52/70/28/93% RA
- Fasting glucose: >400
- HgbA₁C: 8.5
- Na 145 K 3.5 Cl 108 HCO₃ 26
- BUN 60 Creatinine 2.0
- WBC 7 Hgb 15 Hct 45 Plt 117
- Neutrophils normal, segs 76, bands 16, eos 2
- INR 1.5 PT 13 PTT 48
- AST 120 ALT 57 Alk Phos 500 GGTP 230
- Albumin 3.5

Laboratory Data

- Amylase 82 Lipase 45
- PSA 3
- Cholesterol 260
 - HDL 23 LDL 146 TG 500
- UA
 - +4 proteinuria
 - Glucose
 - Neg nitrites, leukocytes
 - Tntc RBC, WBC 10
 - Specific gravity 1010
- Urine Culture negative



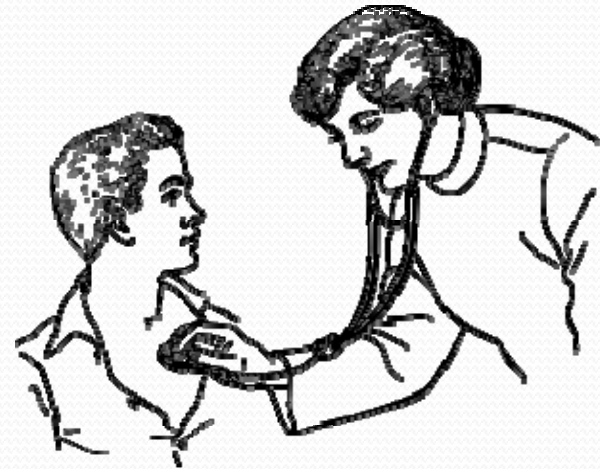
Data

- CXR
 - Hyperinflated, cardiomegaly
 - Blunting of costophrenic angles
 - 1 cm spiculated nodule RLL
- EKG
 - LVH with strain
 - MAT
 - ST depression laterally I AVL V₅ V₆
- ECHO
 - LVH
 - EF 52%
 - Mild PHTN
 - E/A reversal suggesting diastolic dysfunction



Physical Examination

- Vitals:
 - 5'10" 350 pounds BMI 50.2
 - BP 200/110
 - HR 110
 - RR 16 pox 93% RA
- AAOx3 well kept but stressed
- HEENT: poor dentition, halitosis, nasal congestion, PERLA EOMI, TM's patent, fundoscopic: early retinal changes and congenital cmv





Physical Examination

- Neck 18 inches, L carotid bruit, thyroid normal, no jvd
- Cardiac: regular rhythm, s1 s2, no murmur or rub
- Lungs: Diminished breath sounds, scattered expiratory wheeze
- Abd: Distended, previous scar from prior surgeries, spleen normal, liver edge palpable, bowel sounds present, no suprapubic tenderness
- Rectal: Prostate nodular and boggy, heme + stool



Physical Examination

- Extremities: trace edema, no clubbing, pulses palpable but diminished in lower extremities, no cyanosis
- Neuro: CN 2-12 intact, nonfocal
- Skin: diabetic dermopathy lower extremities

The Problems

- Diabetes
- Coronary Artery Disease
- Cancer





Culturally Competent Care

Definition

- The knowledge, skills and attitudes required to provide quality clinical care to patients from different cultural, ethnic, and racial backgrounds.
- It involves tailoring delivery to meet patients' social, cultural and linguistic needs in an effort to improve outcome and eliminate disparities in healthcare.



Culturally Competent Diabetes Care

- Culturally competent care requires a commitment from doctors and other caregivers to understand and be responsive to the different attitudes, values, verbal cues, and body language that people look for in a doctor's office by virtue of their heritage.
- Get to know your patients on an individual level.

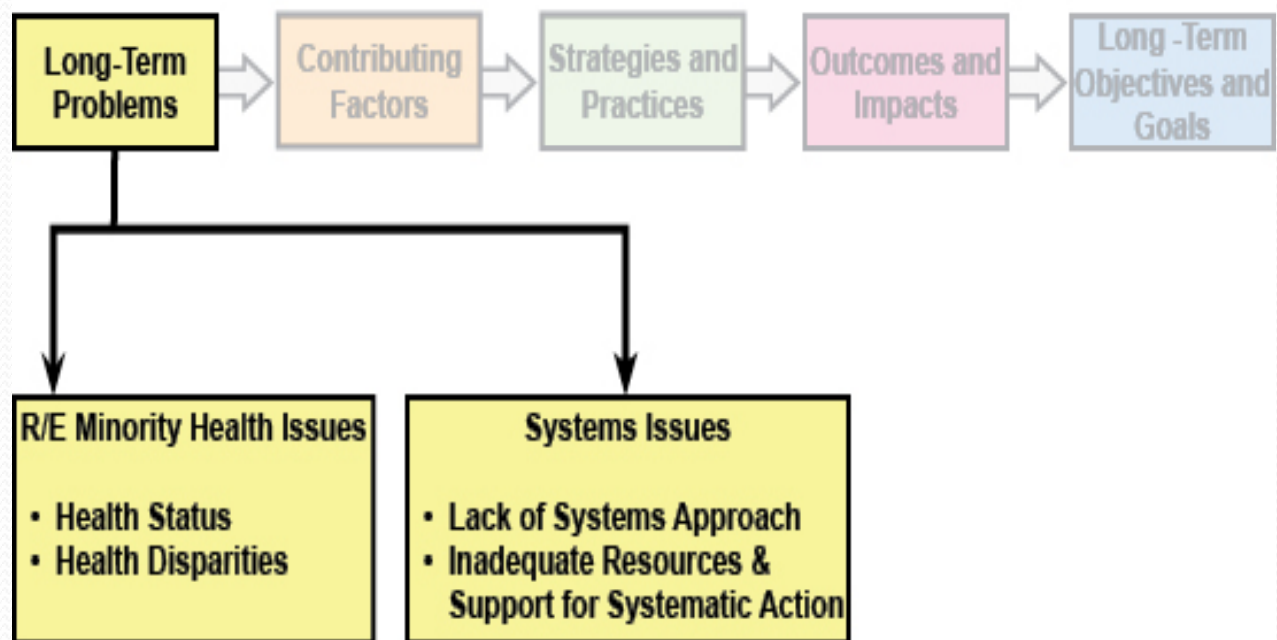


Culturally Competent Diabetes Care

- According to the 2002 Institute of Medicine report titled, “Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care.”
 - Racial and ethnic minorities tend to receive lower quality health care than non-minorities even when access to insurance and income is accounted for.



The Framework





Health Care Disparities in Diabetes Care

- Efforts to reduce health disparities:
 - Must be holistic
 - Address physical, emotional, and spiritual health of individuals and families.
 - Make connections with community members
 - Recognize conditions in the community.



How Do We Bridge The Gap?

- According to National Healthcare Disparities Report (NHDR), the proportion of patients with diabetes who had all three annual services recommended by the American Diabetes Association (eye exams, foot exams and A1C measurement) were significantly lower for poor to middle-income individuals, Hispanics, and those without some college education compared to other groups.



How Do We Bridge The Gap?

- Physicians need to be aware of unconscious biases and stereotyping.
- Physicians who employed greater patient-centered communication skills were able to overcome the barriers of racial/ethnic discordance in terms of patient satisfaction, trust, and intent to adhere.
- Also, knowledge of patients health literacy can help physicians when giving health information.



How Do We Bridge the Gap?

- Peek et al. found that patient-centered educational interventions that used peer support or one-on-one interactions were more likely to yield positive results.
- Those interventions that were culturally tailored resulted in greater reductions in A₁C than interventions directed at the general population.



Diet

- Hearty meals “soul food”.
- May mean fried chicken, pork chops, chitterlings, grits, cornbread, macaroni and cheese and hushpuppies.
- Traditionally, many elders eat a large noon meal on Sunday after church.



Social Structure

- Nuclear family.
- Extended with non-related “family” members.
- Family may be matriarchal.
- Women more than men tend to remain unmarried.
- More women educated at college level.
- Older generation are more conservative.
- Elders are respected and often provide care for grandchildren.



Religion

- Strong religious affiliations



Death and Dying

- Older AA believe death is God's will.
- A family-centered approach is recommended for conveying serious medical information, seeking consents etc.



Medical Care

- Older African Americans are suspicious of physicians.
- Health is personal and up to God's will.
- Building a trusting relationship is key.



Medical Care

- Forty –five percent of Africans Americans are obese.
- Obesity contributes to the increase risk of diabetes.



Tips

- Use a non-confrontational tone.
- Be receptive to family suggestions.
- Friendly physical contact between female patient and female physician and between a male patient and male physician.
- Ask patients if they would like to have family members present during visits.
- Provide a room large enough to accommodate the family.



Tips

- Acknowledge male family members who are present.
- Males are typically the head of household.
- Explain why you use trained medical interpreters and not family members.
- Never use children as interpreters.
- Ask open-ended questions, such as, “please describe what you are feeling,” rather than “do you have pain?”



TIPS

- Assess the importance of religion and health care beliefs.
- Ask patients what they believed cause their illness .
- Explain the medical reason for their illness.
- Recognize that they may not agree with you about the cause.



TIPS

- Ask the patient if they use home remedies and assess the safety of the remedies they use.
- Ask patients to repeat back health information to you to ensure understanding.
- Repeat information and offer reassurance frequently.
- Provide written educational materials with pictures or a video in Spanish for patients who do not speak English.



TIPS

- Educate patients about diet and exercise and the importance of mammograms and pap smears.
- Explain how to navigate your health care facility.
- Kindly explain why being on time for visits is important and affects other patients.




Summary

- Establishing a trusting relationship and creating a compassionate, caring atmosphere with an attention to culture, is paramount in order to bridge the disparities in health care among minority patients.



Cancer screening


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- Colorectal Cancer, if detected early, has greater than 90% 5 year survival, however, survival has been shown to vary across racial/ethnic groups in the United States despite the availability of early detection.
 - In general, ethnic minorities have lower rate of cancer screenings, even though this gap has narrowed, for Mammography and Pap smear, lack of information about cancer, misunderstanding of risk factor or screening guidelines, and inaccurate perception of cancer risk may also affect screening behavior.



ACS Guidelines

ACS guidelines for screening and surveillance for the early detection of adenomatous polyps and colorectal cancer were updated in 2001 and the recommendation for stool blood testing were modified in 2003 by adding fecal immunochemical test. There are a number of options for colorectal screening, which may be chosen based on individual risk, personal preference, and access.

The ACS recommends that average - risk adults begin colorectal cancer screening at age 50 years with one of the following options:-

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- (1) Annual fecal occult blood test (FOBT) or fecal immunochemical test (FIT)
 - (2) Flexible Sigmoidoscopy every 5 years
 - (3) Annual FOBT or FIT, plus flexible Sigmoidoscopy every 5 years
 - (4) Double contrast barium enema (DCBE) every 5 years or
 - (5) Colonoscopy every 10 years.
 - Kaiser Foundation recommend telephone reminders which increased colorectal screening by 30%

The ACS recommends more intensive surveillance for individuals at higher risk for colorectal cancer. Individuals at higher risk for colorectal cancer include:-

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- Individuals with a history of adenomatous polyps.
- Individuals with a personal history of curative intent resection of colorectal cancer.
- Individuals with a family history of either colorectal cancer or colorectal adenomas diagnosed in a first-degree relative before age 60 years.
- Individuals at significantly higher-risk due to a history of inflammatory bowel disease of significant duration.
- Individuals at significantly higher-risk due to a family history or genetic testing indicating the presence of one of two hereditary syndromes, such as hereditary nonpolyposis colorectal cancer (HNPCC) and familial adenomatous polyposis (FAP).

For these individuals, increased surveillance generally means a specific recommendation for colonoscopy, if available, and may include more frequent exams and beginning exams at an earlier age.

Recommendation to Increase Colorectal Screening:---

- Good family history when a patient first comes to your practices.
- Primary Care Providers should make timely referral for screening
- Making patient information understandable.
- Mass media advertisement.
- Screening reminders at churches, Health Fairs.
- Community outreach programs.
- Communication of cancer risk information may serve as an important tool to promote early detection.

Updates on ADA Diabetic Care/Guideline 2010

- **Criteria for diagnosis of diabetes:**

- A₁C \geq 6.5%
- FPG $>$ 126mg/dl (no caloric intake for at least 8 h).
- 2-h plasma glucose \geq 200mg/dl during an OGTT (glucose load of 75g).
- Patient with classic symptoms of hyperglycemia or hyperglycemia crisis with random plasma glucose \geq 200mg/dl.

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- **Screening for diabetes in asymptomatic patients:**

- Adults of any age with BMI \geq 25kg/m² with 1 or more additional risk factors.
- Adults starting at age 45 with BMI \geq 25kg/m² with no risk factors.
- If normal tests, repeat every 3 years.

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- **Criteria for diagnosis of GDM:**

- At risk population for GDM, 3-h OGTT.
- Women with GDM need screening for diabetes 6-12 weeks postpartum.

Updates on ADA Diabetic Care/Guideline 2010

- **Prevention of T₂DM:**

- Patients with IGT, IFG or A₁C of 5.7-6.4%, needs MNT, life-style modifications, weight loss of 5-10% of body weight, increase physical activity to at least 150 min/week of moderate intensity aerobic physical activity (50-70% of maximum heart rate), resistance training 3x/week, daily dietary fiber of 14g/1000 kcal with whole grain intakes of ½ of grain intake, saturated fat intake <7% of total calories, minimize intakes of trans fat, use glycemic index/glycemic load for monitoring carbohydrate intake, limit alcohol intake to moderate amount (≤ 1 drink/day for adult women, ≤ 2 drinks/day for adult men).
- Follow-up counseling, psychosocial assessment and care.
- Empiric metformin for high risk populations (IFG and IGT + other risk factors such as A₁C >6%, HTN, low HDL, elevated TG, 1st degree family Hx, obesity in patients <60 years of age).
- Bariatric surgery considered only for adults with BMI >35 kg/m².

Updates on ADA Diabetic Care/Guideline 2010

- **Glucose Monitoring:**

- Patients with CSII (insulin pump) or multiple insulin injections, needs SMBG ≥ 3 x/day.
- A₁C at least 2x/year in patients meeting treatment goals with stable glycemic control.
- Quarterly A₁C in patients with therapy change or not meeting treatment goals.
- Point of care testing when needed on therapy changes.

- **Glycemic goals in adults:**

- Nonpregnant adults = A₁C <7%.
- DCCT and UKPDS cohorts suggest long term risk reduction of macrovascular disease.
- DCCT, UKPDS and ADVANCE suggest reduced proteinuria has small but incremental benefits in microvascular outcomes.
- Patients with GDM:
 - Pre-prandial ≤ 95 mg/dl.
 - 1-h post-prandial ≤ 140 mg/dl.
 - 2-h post-prandial ≤ 120 mg/dl.
 - Pre-meal, bedtime, overnight glucose 60-99 mg/dl.
 - Peak post-prandial glucose 100-129 mg/dl.
 - A₁C <6%

Updates on ADA Diabetic Care/Guideline 2010

Goals for patients with diabetes:

- BP check at every visit, goal $<130/80$ mmHg for nonpregnant adults.
 - Lifestyle therapy is maximum of 3 months if SBP 130-139 mmHg, DBP 80-89 mmHg.
 - Rx + lifestyle therapy if SBP ≥ 140 mmHg, DBP ≥ 90 mmHg.
 - ACE-I/ARB.
 - Thiazide diuretic for GFR ≥ 30 ml/min per 1.73m^2 .
 - Loop diuretic for GFR < 30 ml/min per 1.73m^2 .
- Pregnant patients, BP target goals = 110-129/65-79 mmHg.
 - ACE-Is/ARBs are contraindicated.
- Fasting lipid profile at least annually. Patients with low risk lipid values (LDL <100 mg/dl, TG <150 mg/dl), may repeat lipid every 2 years.

Updates on ADA Diabetic Care/Guideline 2010

Goals for patients with diabetes:

- Statin therapy should be added regardless of baseline lipid levels for at-risk diabetic patients:
 - Overt CVD.
 - No CVD Hx with age >40 + 1 or more CVD risk factors.
 - Contraindicated in pregnancy.
- LDL goals <100 mg/dl for patients without overt CVD, <70 mg/dl for patients with overt CVD. 30-40% baseline LDL reduction for those who cannot reach goals on maximal tolerated statin therapy.
 - Men: TG <150mg/dl, HDL >40mg/dl.
 - Women: TG <150mg/dl, HDL >50mg/dl.
- Antiplatelet therapy, ASA (75-162 mg/day) for diabetic patients as primary/secondary prevention with increased CV risk (10-year >10% risk), with at least 1 major risk factors (FHx of CVD, HTN, smoking, dyslipidemia, albuminuria):
 - Men >50 years of age.
 - Women >60 years of age.

Updates on ADA Diabetic Care/Guideline 2010

- **Goals for patients with diabetes continues:**

- Clopidogrel (75mg/day) in patients with CVD and documented ASA allergy.
- ASA(75-162 mg/day) + Clopidogrel (75 mg/day) up to 1 year after ACS.
- B-blockers for at least 2 years in patients after MI.
- Avoid TZD patients with symptomatic heart failure (NYHA Class III/IV, ACC Class C).
- Avoid metformin in unstable or hospitalized patients with CHF.

- **Immunization:**

- Annual influenza vaccine for all diabetic patients ≥ 6 months of age.
- Pneumococcal vaccine for all diabetic patients ≥ 2 years of age, 1 time vaccine for patients > 64 years of age previously immunized < 65 years of age + if last vaccine was > 5 years.

Updates on ADA Diabetic Care/Guideline 2010

Preventative care goals for patients with diabetes:

- Patients with T₁DM diagnosed ≥ 5 years + all patients with T₂DM needs annual urine albumin excretion. Continued monitoring of urine albumin excretion to assess and progression of CKD is recommended.
- Annual serum creatinine in all diabetic patients.
 - Reduction of protein intake to 0.8-1.0 g/kg/day in diabetic patients with early stages of CKD.
- Patients with T₁DM ≥ 10 years of age needs annual dilated and comprehensive eye/retinal exam within 5 years after onset of diabetes.
- Patients with T₂DM needs annual dilated and comprehensive eye/retinal exam after diagnosed.
 - More frequency of follow-ups are needed if progressing retinopathy is found.
 - Presence of retinopathy is NOT a contraindication to ASA therapy for cardioprotection, and has not been shown to increase risk of retinal hemorrhage.

Updates on ADA Diabetic Care/Guideline 2010

Preventative care goals for patients with diabetes:

- Annual comprehensive foot examination for all diabetic patients (inspection, foot pulses, sensory tests).
 - 10-g monofilament + 1 of the adjunct tests (vibration tests using 128-Hz tuning fork, pinprick sensation, ankle reflexes, or vibration perception threshold).
 - Multi-disciplinary care for patients with foot ulcers, high risk feet (Hx of prior ulcer or amputation, smokers, protective sensory loss, structural abnormalities).
 - ABI for PAD screenings, refer to vascular assessment for positive ABI.
- All diabetic patients need at least annual screening for distal symmetric polyneuropathy (DPN).
- Screening for celiac disease with anti-TTG or anti-endomysial antibodies or (newer anti-DPG) in children with T₁DM.
- Screening for autoimmune thyroid disorder with anti-TPO, anti-thyroglobulin antibodies for children with T₁DM.

Updates on ADA Diabetic Care/Guideline 2010

- TSH screening once metabolic control has been established in all diabetic patients.
 - Recheck every 1-2 years if normal TSH. If abnormal TSH if found, need Free T₄.
- Family planning for women of reproductive age.
- Registered dietitian for MNT.
- Annual diabetic dental exam.
- Diabetes self-management-education (DSME).



Updates on ADA Diabetic Care/Guideline 2010

Diabetic care in the hospital:

- Blood glucose monitoring after admission.
- Glucose levels for critically ill patients:
 - Start insulin therapy at blood glucose threshold >180 mg/dl.
 - Maintenance of glycemic range of 140-180 mg/dl while on insulin therapy.
- Glucose levels for non-critically ill patients:
 - If insulin therapy is utilized, pre-prandial glycemic goal <140 mg/dl, with random blood glucose <180 mg/dl.
- Schedule SC basal insulin with SC bolus insulin based on nutritional intake, with supplemental correction.
- Obtain A₁C in all diabetic patients if results of previously 2-3 months is not available.



References

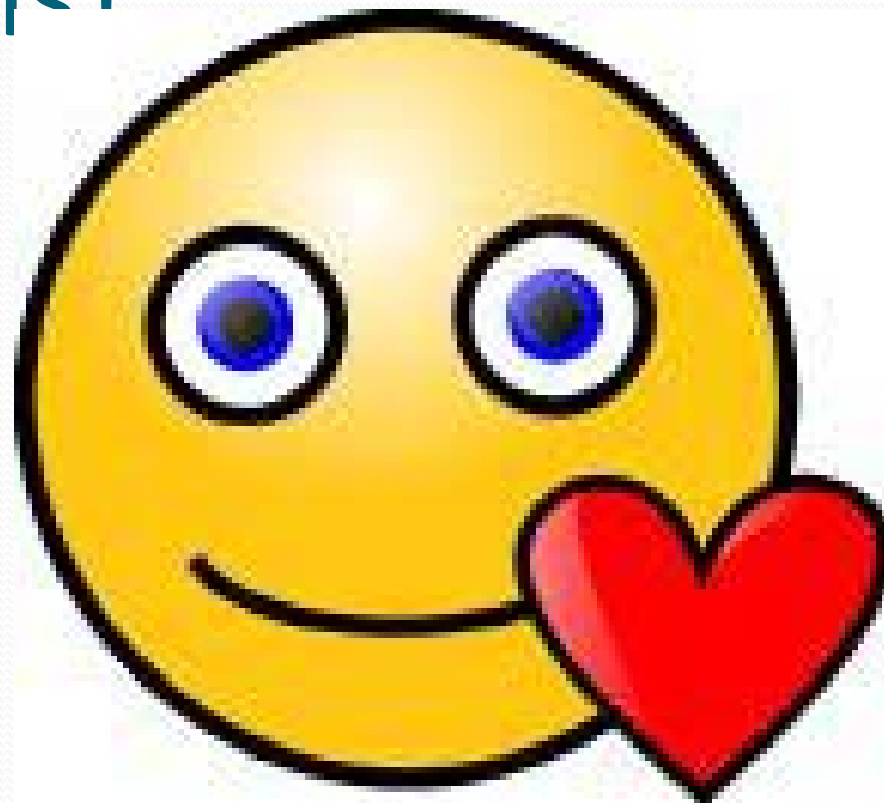
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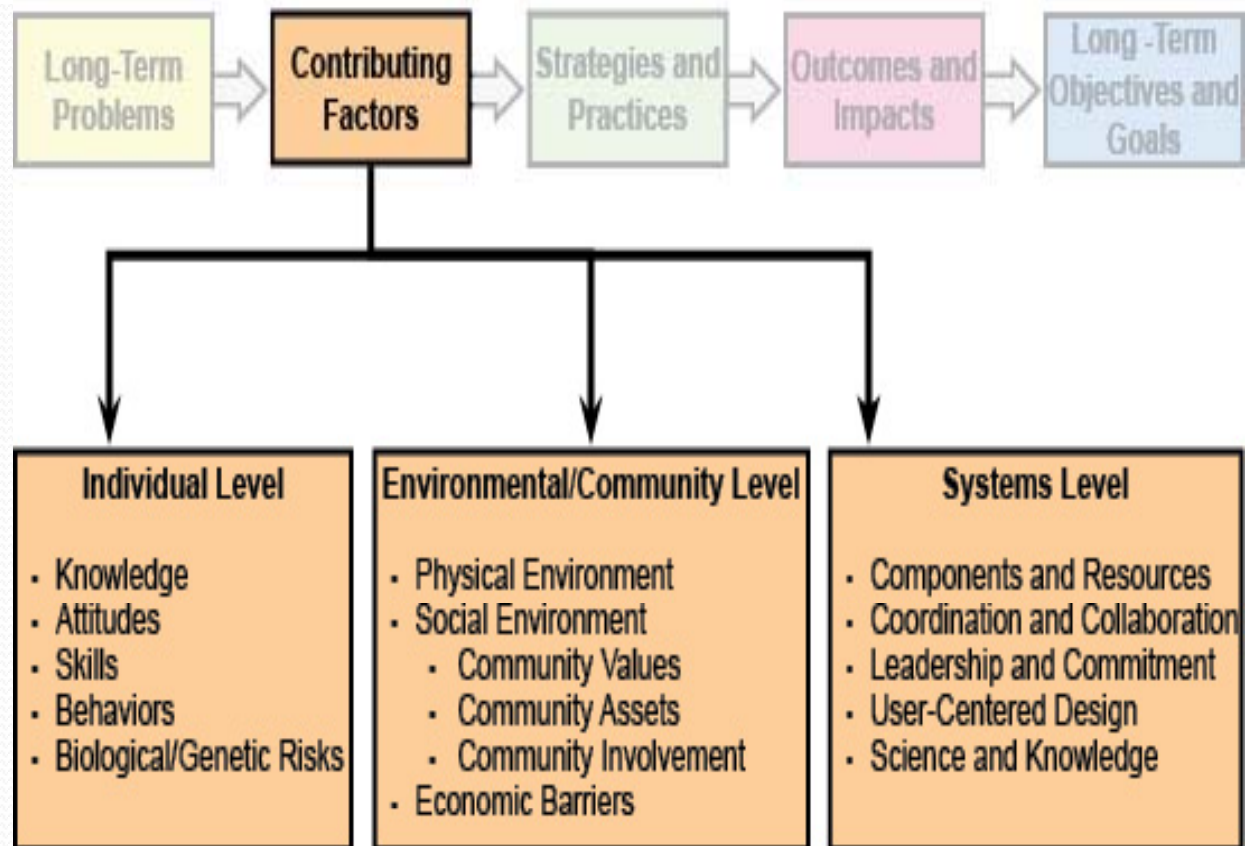
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Questions?



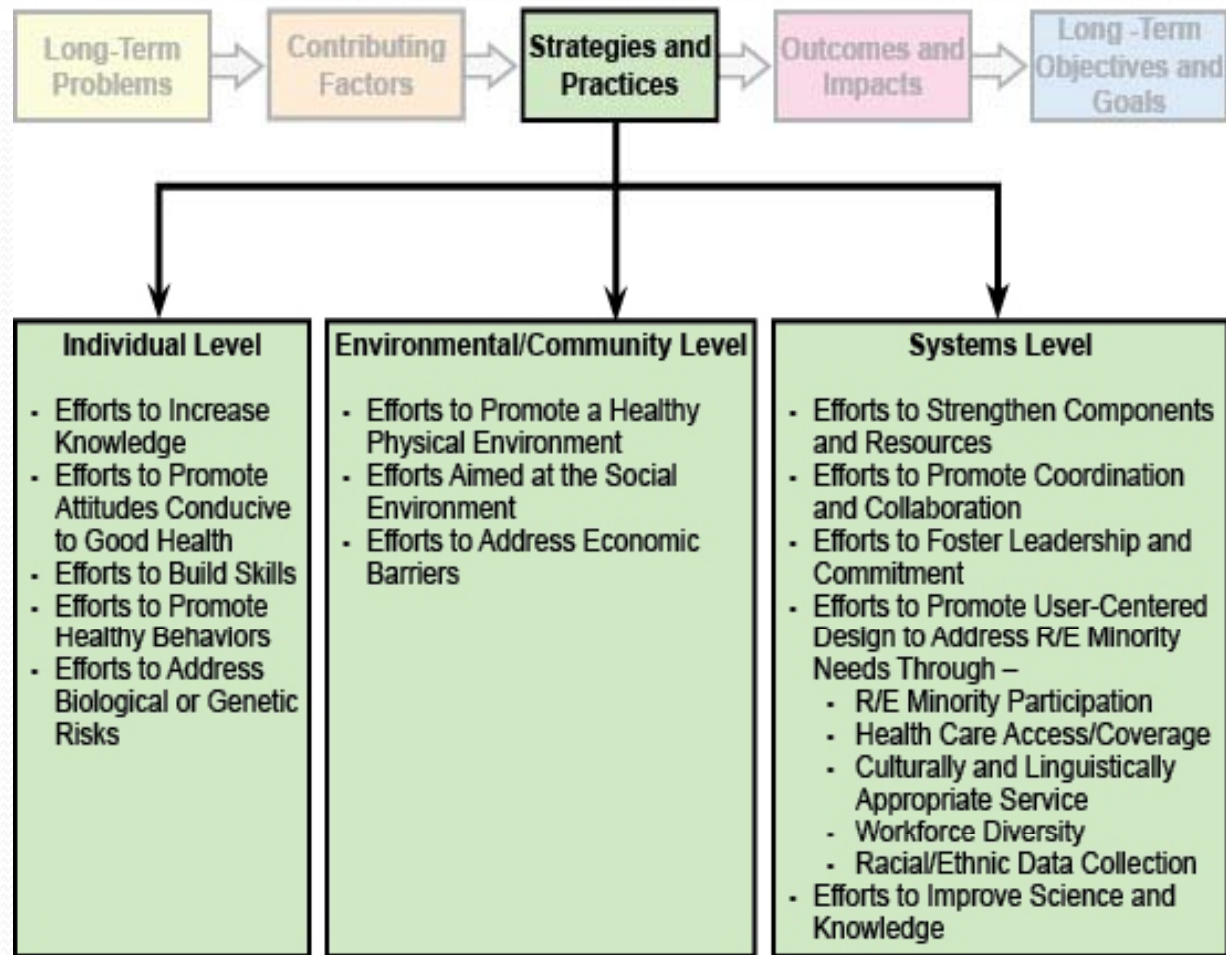


The Framework



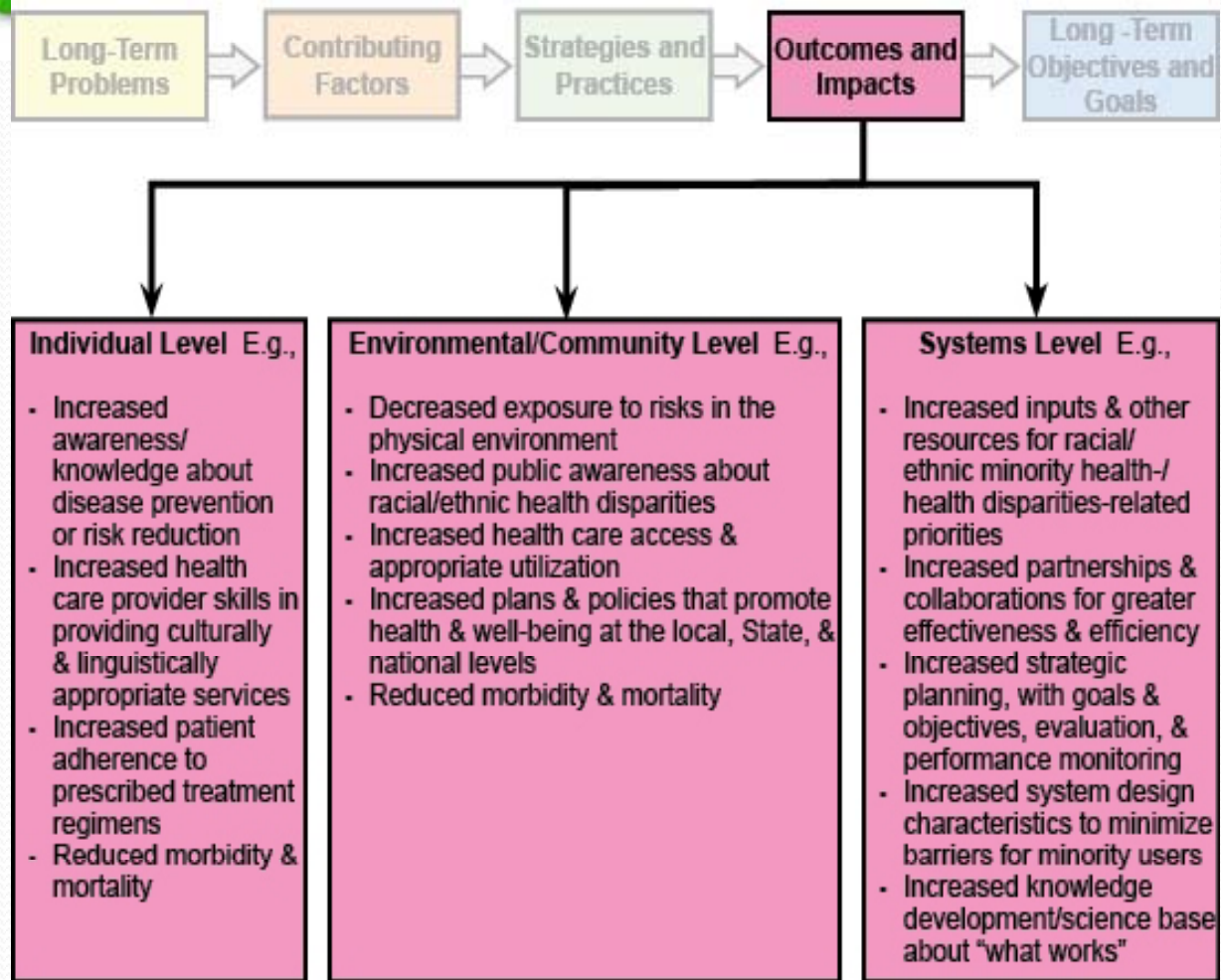


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