Disease Management Colloquium Philadelphia, PA June 30, 2004











Leveraging Technology to Deliver Culturally & Linguistically Appropriate DM Services

Hispanic Health Solutions

Dr. Dirk G. Schroeder EVP, HispaniCare Prof. Intl Health, Emory Univ.

Mr. Jim Price VP Bus Dev, HispaniCare



Which is correct?



What is the proper Spanish term for "breast cancer"?

- 1) Cancer de mama
- 2) Cancer de seno

Answer: They are **both** correct!



HispaniCare - Mission



- 1. Provide healthcare organizations with the **culturally** and **linguistically** relevant:
 - Marketing
 - Communications, and
 - Health management
 - solutions they need to serve and grow with diverse populations.
- 2. Contribute to a reduction in the health disparities gap



Learning Objectives - Overall



1. <u>Business case</u> for investing in disease management programs that are culturally- and linguistically-specific

2. How and why technology can and should be used to increase efficiency & effectiveness of such programs



7 Key Points



- 1. Ethnic minorities large & growing in U.S.
- 2. Disparities exist for some, but not all, chronic conditions among ethnic groups
- 3. Poor communication & health beliefs contribute to disparities
- 4. Language and culture can enhance, or impede, effectiveness of DM programs



7 Key Points (cont.)

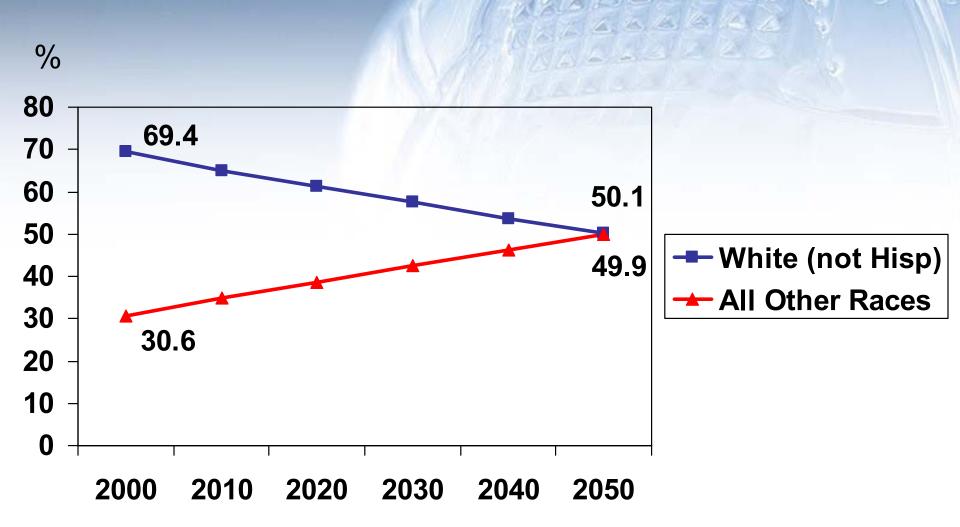


- 5. Today's DM programs are in the initial stages of optimizing for diversity of target populations.
- 6. Specific constraints (e.g. lack of bilingual providers) is slowing progress
- 7. Technology can be used to efficiently deliver personalized DM to a highly diverse populations.



U.S. Population and Projections 2000-2050





Source: U.S. Census Bureau, 2004.





"Hispanics Spur Population Growth"

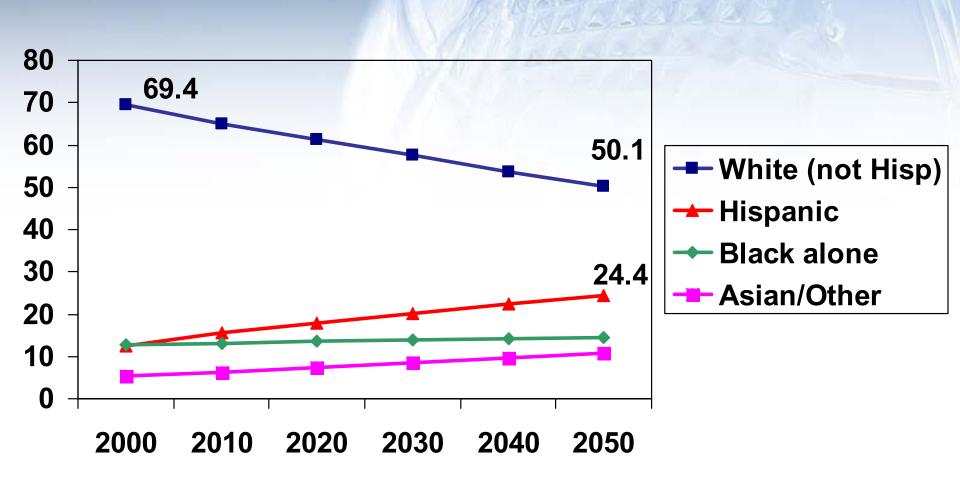
USA Today, March 2001





U.S. Population and Projections 2000-2050





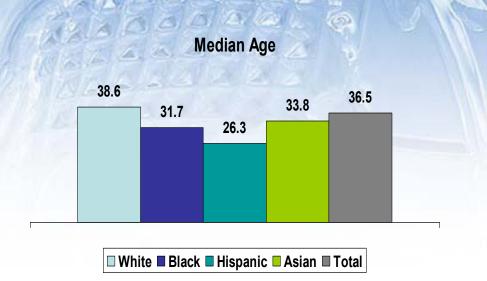
Source: U.S. Census Bureau, 2004.



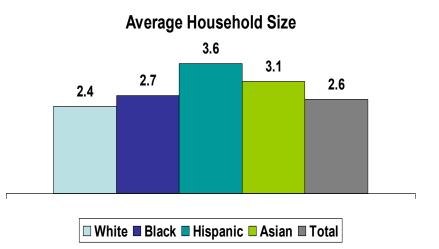
Hispanics...



Are younger



Have larger families



Source: Census data; DrTango analysis



"Minorities": Driving population growth with Employer-Sponsored Insurance



Total U.S. Population with Employer-Sponsored Insurance (in millions)

| Demographic group | 1990 | 2002 | Growth | |
|--------------------|------------|------------|------------|-------------|
| White non-Hispanic | 123.3 | 130.8 | 7.6 | 6% |
| Hispanic | 8.9 | 16.7 | 7.8 | 88% |
| African-American | 13.6 | 18.8 | 5.2 | 38% |
| Asian | 3.9 | 7.6 | 3.7 | 95% |
| <u>Other</u> | <u>0.6</u> | <u>1.3</u> | <u>0.7</u> | <u>117%</u> |
| Total | 150.2 | 175.2 | 25.0 | 17% |
| | | | | |
| Total "minority" | 26.9 | 44.4 | 17.5 | 65% |
| "Minority" share | 18% | 25% | 70% | |

Source: Census data; HispaniCare analysis



"Minorities" are Driving Medicaid Enrollee Growth (nationally)



Total U.S. Population with Medicaid (in millions)

| | 7,577 | Charle Charle SPECEL / CHOR OF CHE | AND PARTY AND A SECOND | |
|--------------------|------------|------------------------------------|------------------------|------------|
| Demographic group | 1990 | 2002 | Growth | (90-02) |
| White non-Hispanic | 11.4 | 15.0 | 3.6 | 4% |
| Hispanic | 3.9 | 7.9 | 4.0 | 103% |
| African-American | 7.8 | 8.3 | 0.5 | 6% |
| Asian | 8.0 | 1.3 | 0.5 | 76% |
| <u>Other</u> | <u>0.3</u> | <u>0.7</u> | <u>0.3</u> | <u>75%</u> |
| Total | 24.3 | 33.2 | 8.9 | 36% |
| | | | | |
| Total minority | 12.9 | 18.2 | 5.3 | |
| "Minority" share | 53% | 55% | 60% | |

Source: Census data; HispaniCare analysis



Hispanics – "like no other"



- "Critical Mass" in number
- Geographic proximity
- Communications & technology
- "Salad bowl" vs. "Melting Pot"

Mar 15 2004

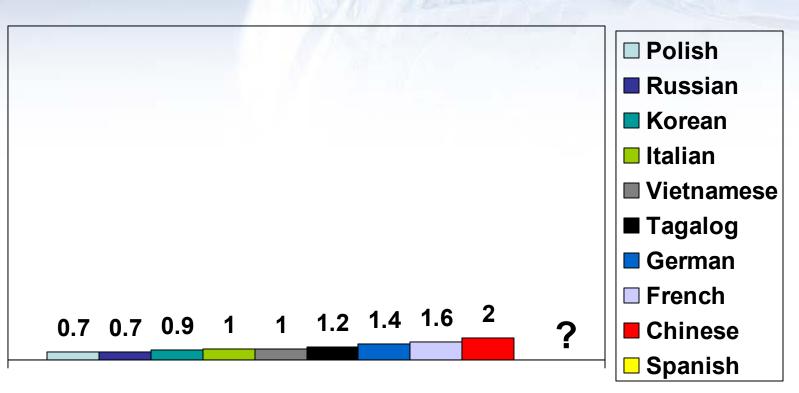




The Importance of Language



Number of People in U.S. that Speak at home....

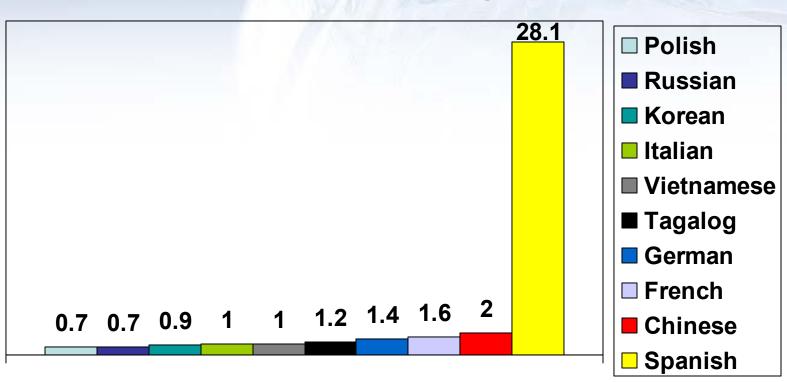


Source: Census data; HispaniCare analysis





Number of People in U.S. that Speak at home.... Spanish!



Source: Census data; HispaniCare analysis



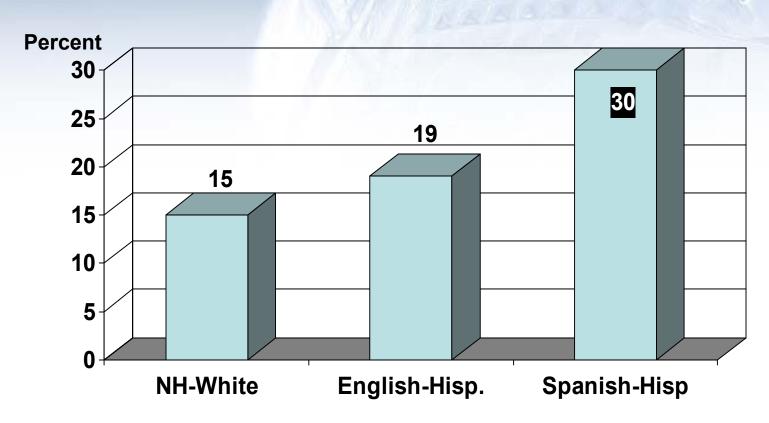


Language and culture are particularly relevant for health issues



INSURED Hispanics Very sick, did NOT seek medical care



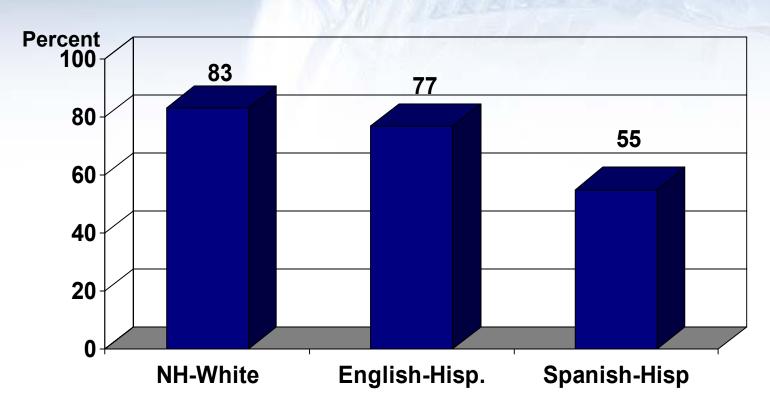


Source: Commonwealth Fund, Feb 2003



INSURED - Easily understands instructions on prescription bottle





Source: Commonwealth Fund, Feb 2003



Sub-optimal utilization of medications by Hispanics



Of 100 Sick, *insured* Spanish-speaking Hispanics:

70% go to doctor, and of these, only 55% adequately understand English Instructions on the bottle.

Thus, due to these two factors alone,

Just 39* of the original 100 are getting and properly understanding the medications they need



Culture



"Culture defines how health care information is received, how rights and protections are exercised, what is considered to be a health problem, how symptoms and concerns about the problem are expressed, who should provide treatment for the problem, and what type of treatment should be given."

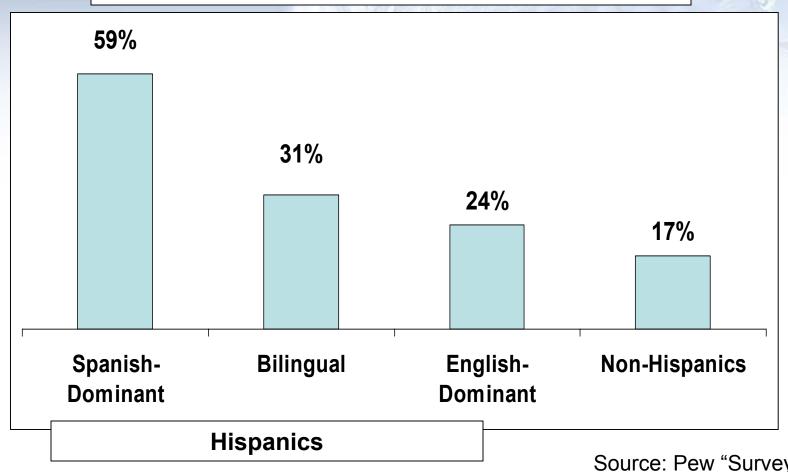
Source: Office of Minority Health, HHS, "National Standards for Culturally and Linguistically Appropriate Services in Health Care," March 2001; above quote from Michael Katz, 1998 used in report.



Health Beliefs



FATALISM: "It doesn't do any good to plan for the future because you don't have any control over it" Percent Agree

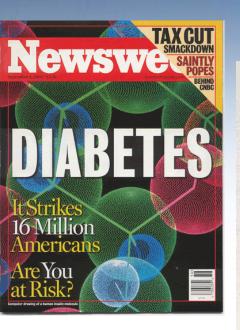


Source: Pew "Survey Brief: Bilingualism", March 2004



Disparities among outcomes





An American Epidemic

The silent killer: Scientific research shows a 'persistent explosion' of cases especially among those in their prime BY JERRY ADLER AND CLAUDIA KALB

OMETHING TERRIBLE WAS HAPPENING TO YOLANDA BENITEZ'S
eyes. They were being poisoned; the fragile capillaries of the retina attacked from within and were leaking blood. The first symptoms were
red lines, appearing vertically across her field of vision; the lines multiplied and merged into a haze that shut out light entirely. "Her blood vessels inside her eye were popping," says her daughter, Jannette Roman, a
Chicago college student. Benitez, who was in her late 40s when the

problem began four years ago, was a cleaning woman, but she's had to stop working. After five surgeries, she has regained vision

Diabetes prevalence, by ag





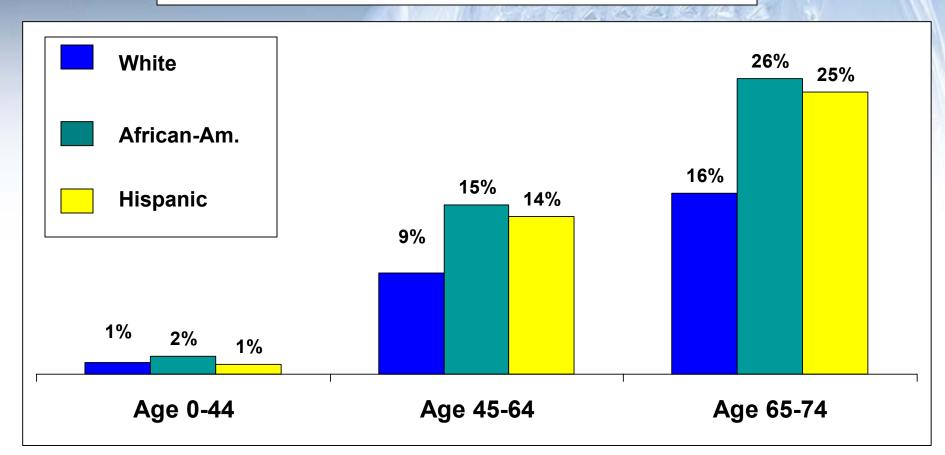




Disparity in Rate of Diabetes



Diabetes, by Race/Ethnicity and Age, (2002)



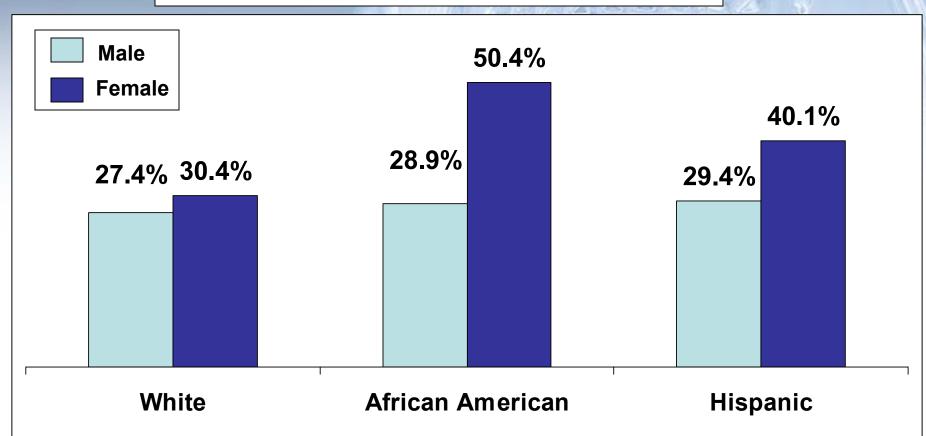
Source: CDC website (June 2004)



Hispani Care Disparity in Obesity



Obesity, by Race/Ethnicity and Age, (1999-2000) Age 20-74, Age Adjusted

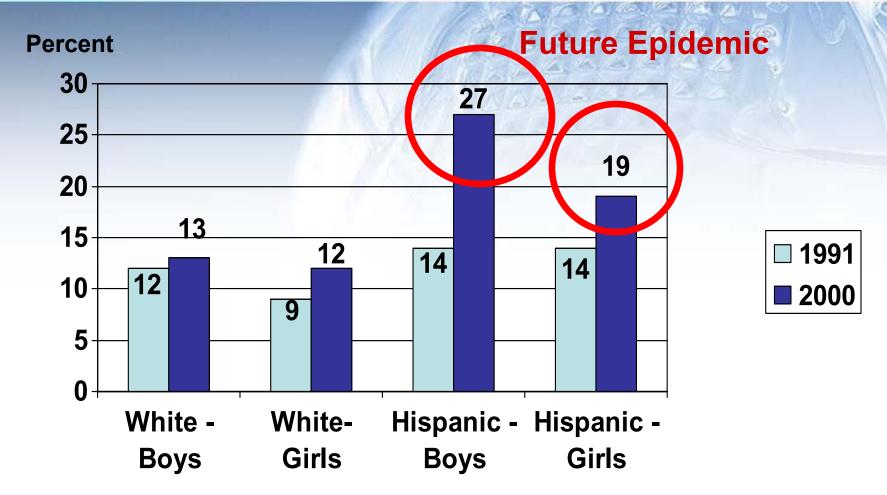


Source: CDC website (June 2004), Health United States 2003



Overweight prevalence of 12-19 y olds from 1991 to 2000



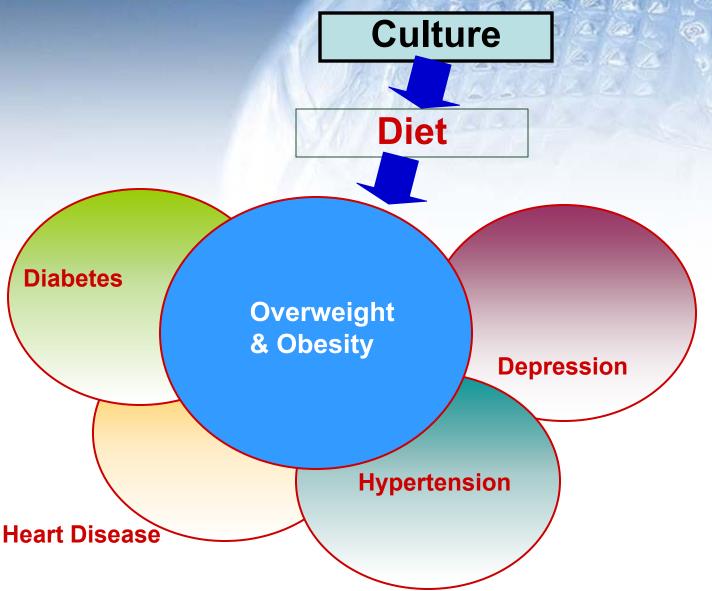


Source: JAMA Oct 9, 2002



Hispani Care Diet & Obesity - Culturally-driven & **Tied to Key Chronic Conditions**







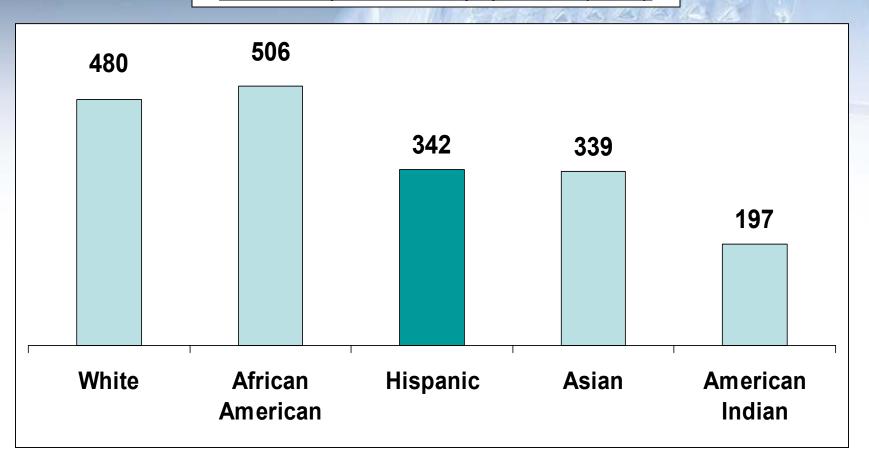
Cancer incidence rates (Age Adjusted)







New case per 100,000 population (2000)



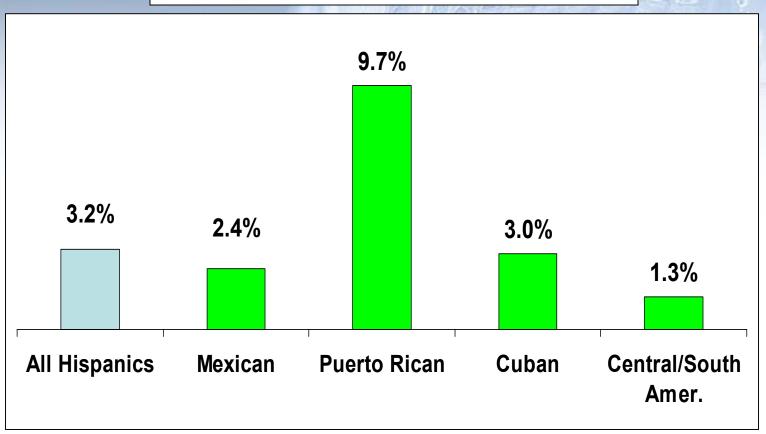
Source: CDC website (June 2004), Health United States 2003



Health Behaviors vary significantly by Hispanic sub-groups



Percent of Mothers who Smoked during Pregnancy(2001)



Source: CDC website (June 2004), Health United States 2003



CLAS Standards



Office of Minority Health, HHS, "National Standards for Culturally and Linguistically Appropriate Services in Health Care," March 2001

 14 Standards, 4 of which are Federal requirements (Limited English Proficiency regs, Title VI)

Domains:

- Culturally competent care
- Language Access Services
- Organizational Support for cultural competency





Standard 7:

Health care organizations must make available easily understood patient-related materials and post signage in the language of the commonly encountered groups and/or groups represented in the service area.

Source: Office of Minority Health, HHS, "National Standards for Culturally and Linguistically Appropriate Services in Health Care," March 2001





Standard 8:

Health care organizations should develop, implement, and promote a written strategic plan that outlines clear goals, policies, operational plans, and management accountability/oversight mechanisms to provide culturally and linguistically appropriate services.

Source: Office of Minority Health, HHS, "National Standards for Culturally and Linguistically Appropriate Services in Health Care," March 2001



Relative Importance of CLAS by DM Component



| | Relevance | | |
|------------------------------|-----------|---------|--------|
| DM Component* | Language | Culture | Race |
| 1. Population identification | | | |
| a. Claims | None | None | No |
| b. Health Risk Assessment | High | High | ? |
| 2. Evidence-based guidelines | None | None | ? |
| 3. Collaborative practice | None | ? | ? |
| 4. Patient self-mgmt. educ. | High | High | High |
| 5. Measurement | Medium | Medium | Medium |
| 6. Feedback | High | Medium | Medium |



CLAS Relevance by Chronic Care Model Component



| | Relevance | | |
|---------------------------------|-----------|---------|--------|
| Chronic Care Model Component | Language | Culture | Race |
| 1. Community (Resources) | Medium | Medium | Medium |
| 2. Health System (Organization) | No | No | No |
| 3. Self-mgmt. support | High | High | High |
| 4. Delivery system design | High | High | High |
| 5. Decision support | High | Medium | Medium |
| 6. Clinical information systems | High | High | High |

Informed,
Activated
Patient

Productive
Interactions

Prepared,
Proactive
Practice Team

Adapted from

Functional and Clinical Outcomes

Adapted from: ImprovingChronicCare.org,

June 2004



Challenges of applying CLAS to DM



- Lack of bilingual and multicultural staff
- Funding ROI still unproven
- Uncertainty regarding:
 - What affects behavior change by ethnicity/race
 - What should be done
- Extreme diversity in targeted populations



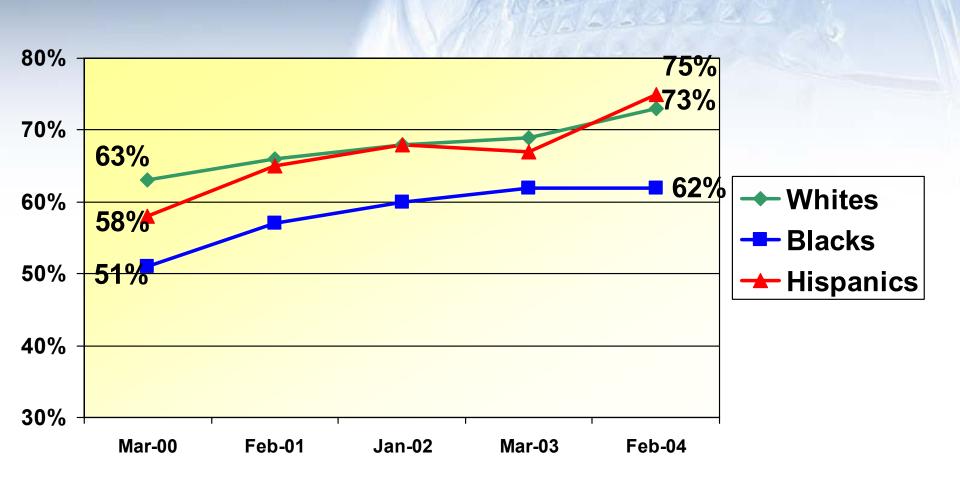


Technology has the potential to Accelerate integration of CLAS into DM



"Use a Computer" by race

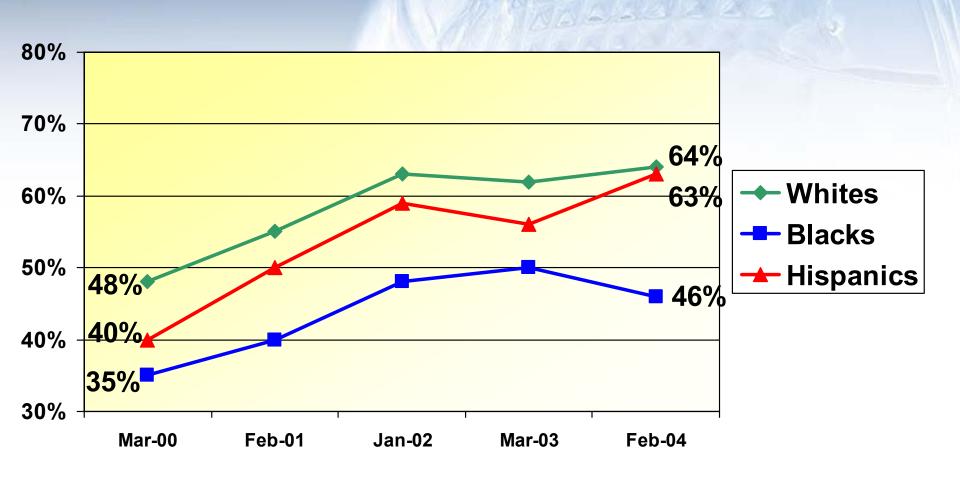






"Go Online" by race

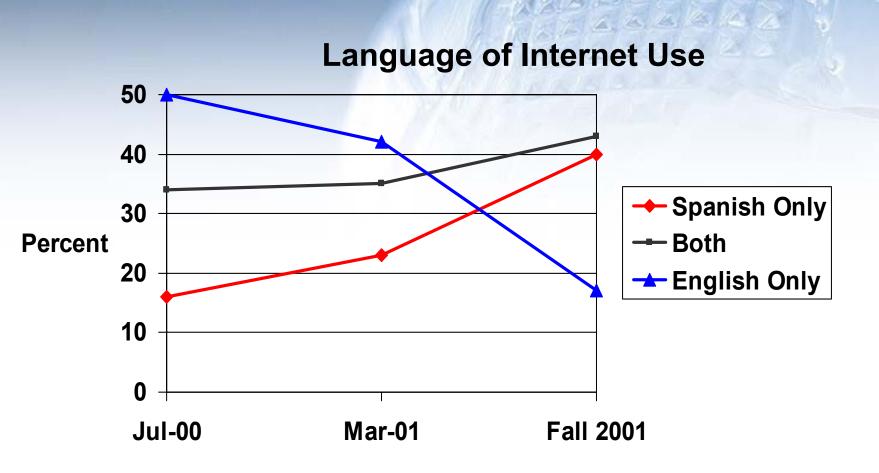






Hispanics increasingly use the Internet in Spanish





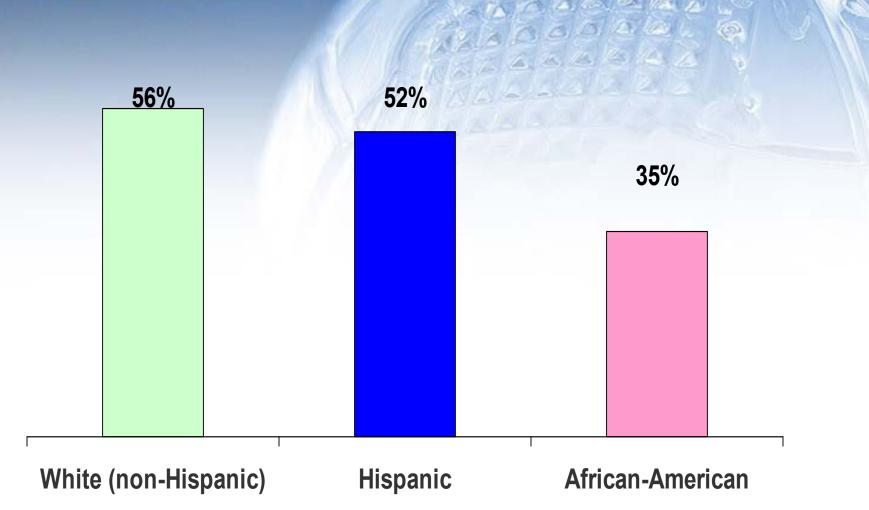
* Use within the last 30 days. Hispanics 16 y or older

Source: Roslow Hispanic Internet Study. Fall 2001.



Percent of ALL Adults who have sought health information online





Source: Harris Interactive, 2003 (Feb 2003 survey)



Hispanics - Using the Web Health Solutions



Young Hispanic adults are at least twice as likely as non-Hispanic adults to use the Internet to visit a hospital's website and to research ratings of local hospitals and health plans as Non-Hispanics

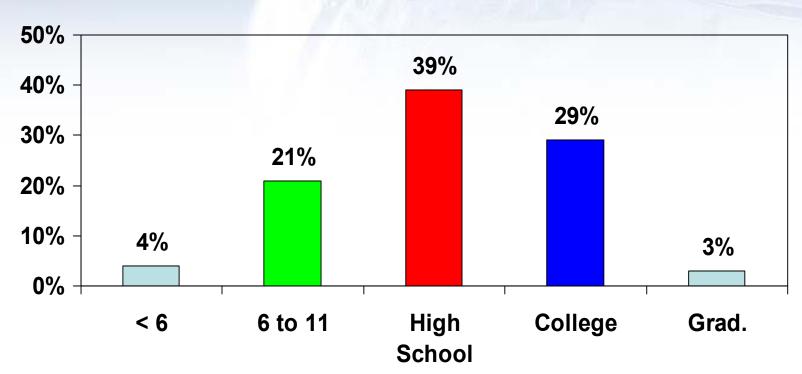
Solucient healthcare survey (October 2003)



Educational level of Online Spanishspeaking Hispanics seeking Health Info.







CDC project: How Hispanics Use the Internet For Health. Schroeder et al. 2002



Common Misspellings – Diabetes (n = 18,555 searches)



Diabetes 72%

Diabetis 16%

Dibetes 3%

Deabetes 3%

Diabete 2%

CDC project: How Hispanics Use the Internet For Health.
Schroeder et al. 2002



Examples











Address (a) http://misalud.anthemhealth.com/





VOLVER A ANTHEM 29 de junio de 2004

Spanish websites

Buscar Palabra Clave

BUSCAR

Página Principal

Nutrición y el Buen Estado Físico

Salud Femenina

Salud Masculina

Salud Infantil

Cuidado Dental

Primeros Auxilios

Salud Emocional

Bienestar y Estilo de Vida

Enfermedades y Trastornos

Centro de Medicamentos

Herramientas Útiles

Enciclopedia

Recursos

MiSalud@Anthem



Lo Más Destacado de Mi Salud

Aclarando El Aire

Si Ud. o alguien que Ud. conoce padece asma o de alergias, vea nuestra página acerca de como manejar estas condiciones comunes.

- El ejercicio y la depresión
- Dieta para un corazón sano
- Oómo tomar decisiones sensatas en lo referente a la salud

En las Noticias

Noticias de HealthDay

- Un Estudio Revela que la Menopausia Se Puede Predecir.
- La Liposucción No Elimina los Riesgos de la Grasa para la Salud
- La Renovación Personal de Licencias de Conducir Disminuye las Muertes de los Conductores de la Tercera Edad
- 🙉 Nuovae Dovolacionae Cahro al Cáncar Acular Infantil

En Primera Plana



★ Alergias Alimenticias

¿Le salen granitos cuando come mariscos? Antes de comer

otro bocado, lea nuestro manual de <u>alergias</u> <u>alimenticias.</u>

Calendario de Salud

ilmprima nuestro Calendario de manejo de la Diabetes



Adapted photos, and images for easy association by the Hispanic audience.

→ DrTango™

Image and layout localization





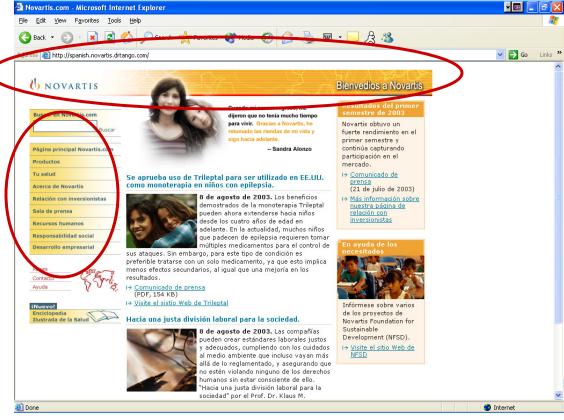


Utilize warm, lightly saturated colors in order to facilitate Hispanic target acceptance of interface.

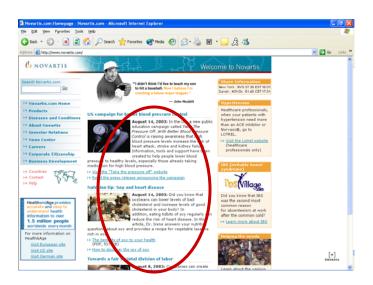
Keep original English site layout structure for image and functional consistency.



Corporate image adaptation



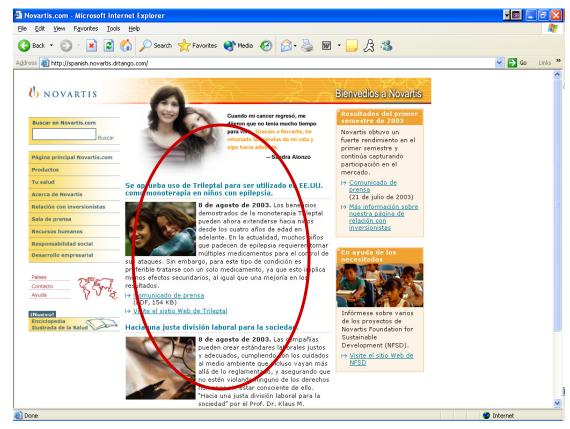




Post a mix of content articles that are (a) straight translations; (b) adapted for Latin Americans; (c) new solely for Spanish version.

⇒ DrTango™

Content – Translated/Adapted/New





Visit German site

Case Study – Novartis

Towards a fair societal division of labor

August 8, 2003: Companies can create

Learn about the various

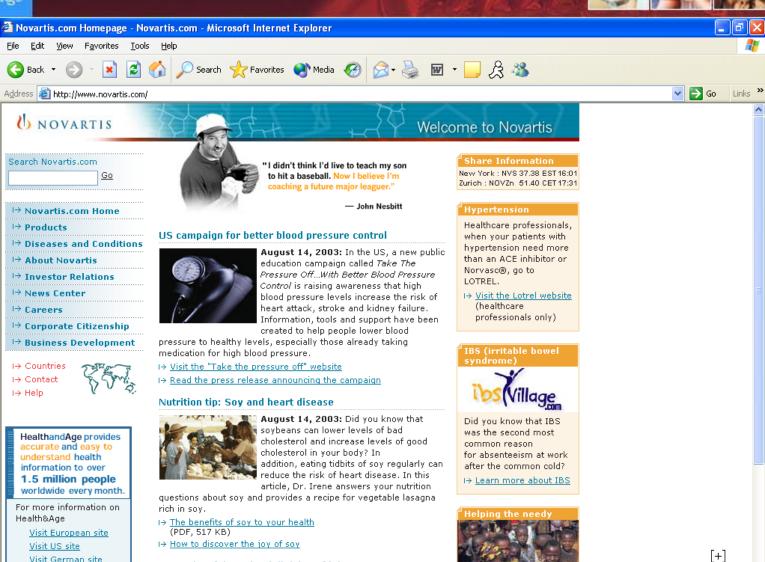






FEEDBACK







Novartis in Spanish



















Favorites Tools



























Address (@) http://spanish.novartis.drtango.com/

NOVARTIS

Buscar en Novartis.com



Cuando mi cancer regresó, me dijeron que no tenía mucho tiempo para vivir. Gracias a Novartis, he retomado las riendas de mi vida y sigo hacia adelante.

-- Sandra Alonzo

Página principal Novartis.com

Productos

Tu salud

Acerca de Novartis

Relación con inversionistas

Sala de prensa

Recursos humanos

Responsabilidad social

Desarrollo empresarial

Paises Contacto



iNuevo!

Ayuda

Enciclopedia Ilustrada de la Salud

Se aprueba uso de Trileptal para ser utilizado en EE.UU. como monoterapia en niños con epilepsia.



8 de agosto de 2003. Los beneficios demostrados de la monoterapia Trileptal pueden ahora extenderse hacia niños desde los cuatro años de edad en adelante. En la actualidad, muchos niños que padecen de epilepsia requieren tomar múltiples medicamentos para el control de

sus ataques. Sin embargo, para este tipo de condición es preferible tratarse con un solo medicamento, ya que esto implica menos efectos secundarios, al igual que una mejoría en los resultados.

- I→ Comunicado de prensa (PDF, 154 KB)
- I→ Visite el sistio Web de Trileptal

Hacia una justa división laboral para la sociedad.



8 de agosto de 2003. Las compañías pueden crear estándares laborales justos y adecuados, cumpliendo con los cuidados al medio ambiente que incluso vayan más allá de lo reglamentado, y asegurando que no estén violando ninguno de los derechos humanos sin estar consciente de ello. "Hacia una justa división laboral para la sociedad" por el Prof. Dr. Klaus M.

Resultados del primer semestre de 2003

Bienvedios a Novartis

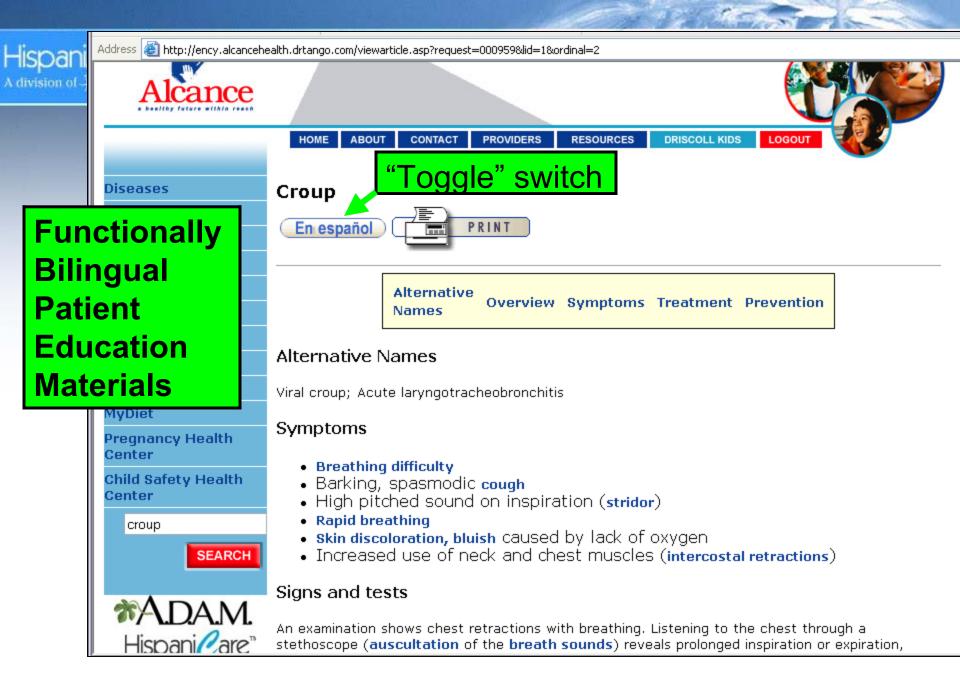
Novartis obtuvo un fuerte rendimiento en el primer semestre v continúa capturando participación en el mercado.

- I→ Comunicado de prensa (21 de julio de 2003)
- I→ Más información sobre nuestra página de relación con inversionistas



Infórmese sobre varios de los provectos de Novartis Foundation for Sustainable Development (NFSD).

I→ Visite el sitio Web de NFSD





Address 🙆 http://ency.alcancehealth.drtango.com/viewarticle.asp?request=000959&lid=2&ordinal=2 INFORMACIÓN CONTACTO PROVEEDORES RECURSOS DRISCOLL KIDS INICIO Toggle" switch Cirugía Crup Enfermedades Imprimir In English Envenenamiento Exámenes Imágenes Nombres Información Síntomas Tratamiento Prevención alternativos general Lesiones Nutrición Nombres alternativos **Procedimientos** médicos Laringotragueobronguitis aguda; crup viral Síntomas Síntomas Temas especiales MiDieta · Dificultad respiratoria Embarazo

- Tos perruna y espasmódica
- Ruidos agudos durante la inspiración (estridor)
- · Respiración rápida

Seguridad infantil

BUSCAR

- Coloración azulada de la piel causada por la falta de oxígeno
- Aumento en el uso de los músculos del cuello y el tórax (retracciones intercostales)

Signos y exámenes



Bilingual Search and Toggle Function



Excellent communication
tool for health
practitioners and
health educators





Example of Personalization: Anthem's eNewsletter



FLAGOR

Your health topics (for personalizing your home page and Health Update newsletter)

We will use your selections to create your personal page and custom newsletter. Check the topics you're interested in; uncheck any default topics you're not excited about. To avoid getting a very long newsletter, we recommend you pick fewer than 10 topics.

| Fitness & Nutrition ✓ fitness and nutrition highlights □ exercise, gear, and sports nutrition □ lifestyle remedies (exercise, nutrition) | healthy eatingvitamins and supplementsweight control |
|---|--|
| Lifestyle & Wellness ☑ lifestyle and wellness highlights ☐ mental health ☐ safety ☐ sex and relationships | sleep stress skin and hair care tooth and gum care travel health |



Example of Personalization: Anthem's eNewsletter



| Women's Health ☑ women's health highlights ☐ breast health | gynecological concerns menopause |
|---|--------------------------------------|
| Men's Health ☑ men's health highlights | prostate problems |
| Health After 60 health after 60 highlights active and healthy aging | caregiving emotional health after 60 |
| Children's Health Children's health highlights baby's first year child development and behavior | child safety and wellness |
| Pregnancy pregnancy highlights conception and infertility | pregnancy and birth |



Example of Personalization: Anthem's eNewsletter









| Alternative Health ☑ alternative health highlights ☐ acupuncture and traditional Chinese medicine ☐ body work (chiropractic, massage) | ☐ herbal remedies ☐ mind-body practices (yoga, meditation, more) |
|--|---|
| Illnesses & Conditions ✓ medical news highlights ☐ addiction and recovery ☐ allergies and asthma ☐ Alzheimer's disease ☐ back care ☐ breast cancer ☐ arthritis ☐ cancer ☐ depression ☐ diabetes ☐ digestive disorders ☐ drugs (medications) ☐ eye problems | fatigue heart disease high blood pressure and stroke HIV/AIDS immune disorders infectious diseases kidney and urinary problems liver and gallbladder problems mental illness osteoporosis pain (headache, back pain, more) sleep disorders STDs (herpes, HIV, more) |
| Work & Health ✓ work & health highlights ☐ managing job stress | staying safe and avoiding injury |
| That's it! Just click the button below and | you're done. |
| Submit! | |



Culturally-appropriate, bilingual diet management



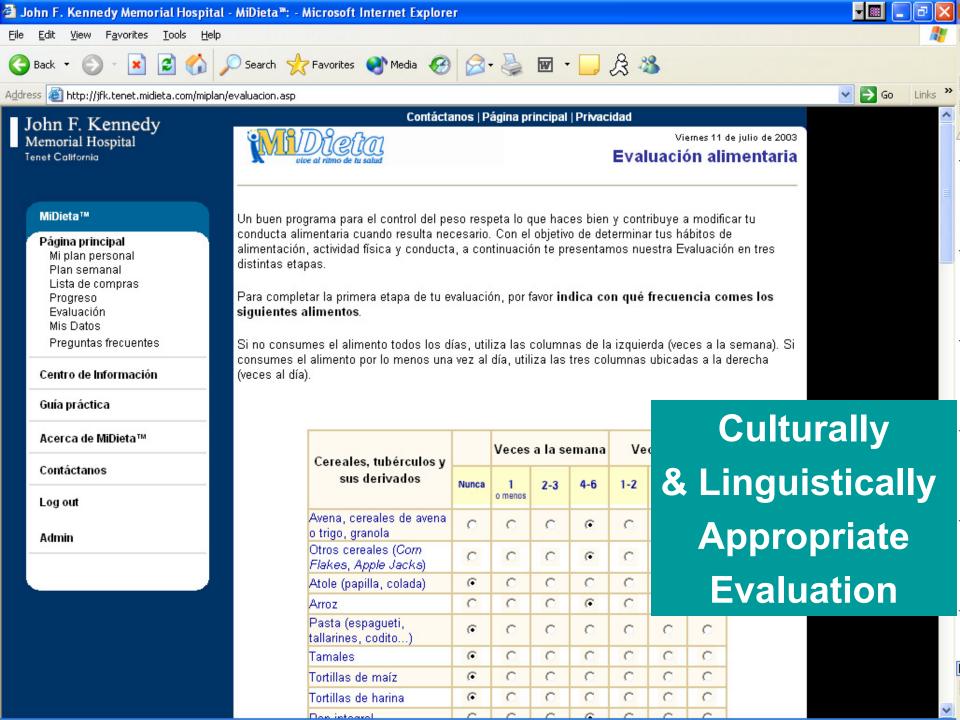


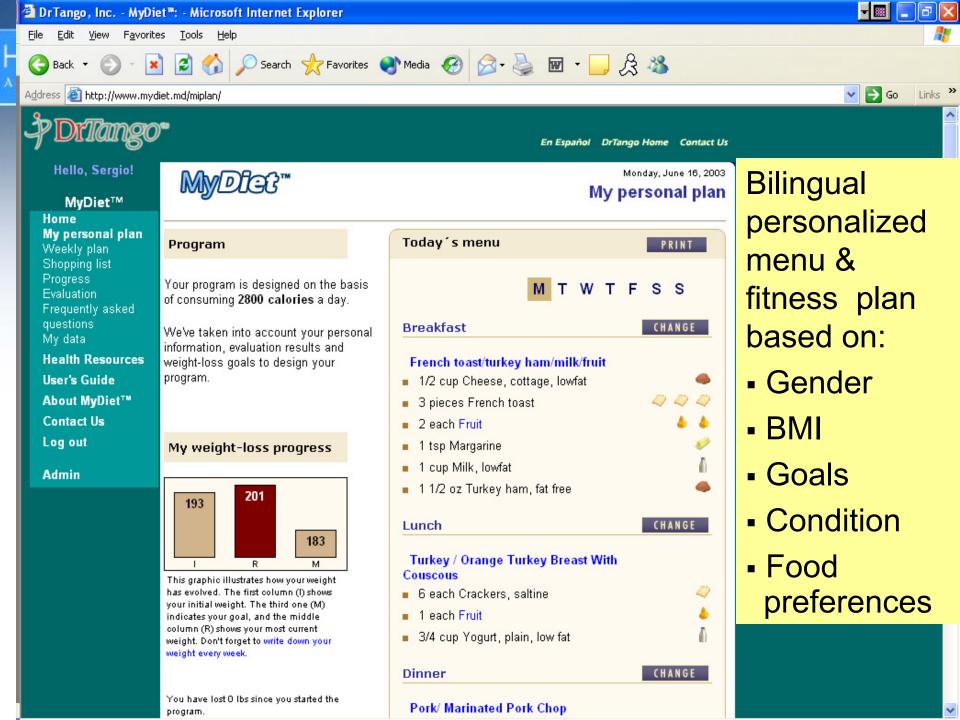


MiDieta® -

- Diet, Fitness Evaluation
- Weekly online newsletter
- Daily recipes, articles, tips
- Personalized menu & fitness program
- Access to bilingual nutritionists









Weekly Reminders & Education











- Multicultural
- Interactive







Unos gemelos muy colaboradores

Lic. Isabel C. Rodriguez R. * Los órganos de nuestro cuerpo, perfectamente sincronizados y con un balance impecable, funcionan incansablemente para sostener nuestra vida. Descubre el rol importante que juegan los riñones dentro del organismo y como puedes ayudar a mantenerlos saludables.

▶ texto completo



¿Que es lo nuevo?

Entérate hoy de las noticias que te interesan para mantener al día tu salud y tu estilo de vida.



MiDieta Investiga

Los adelantos mas recientes, nuevos descubrimientos, información vital; MiDieta lo investiga y tu te enteras.



Descubre la nueva receta que te ofrecemos el día de hoy en la página de MiDieta™. ¡Disfrutala hoy! ◀





What we don't know:

What is the optimal mix of CLAS initiatives within the context of a DM program?



HispaniCare Research Initiatives



Research Questions:

- 1) Which is more effective the use of personalized (and linguistically specific) email counseling, or a culturallyappropriate dietary program?
- 2) Does offering both together result in additive or multiplicative benefits?

Objective: Evaluate the ability of a culturally- and linguistically-appropriate, interactive diet & fitness portal (*MiDieta*) to lead to *weight-loss* among U.S. Hispanics.



Research Design



<u>Settings</u>: Managed care (AtlantiCare) and Hospitals (Tenet, CHRISTUS)

Methods:

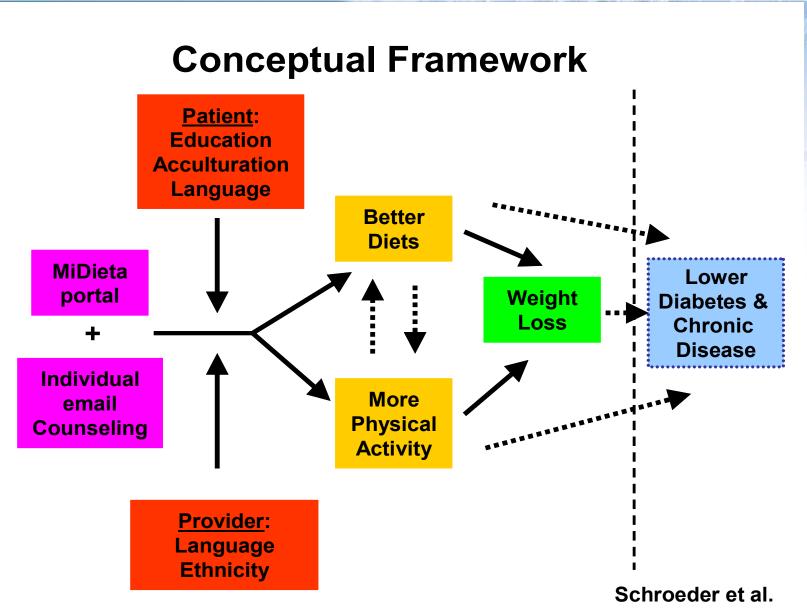
- * Randomized trial (12 month)
- * n = 500

| Four-cell Design | MiDieta™ with Personal Plans | |
|------------------|------------------------------|----|
| eMail Counseling | Yes | No |
| Yes | 1 | 2 |
| No | 3 | 4 |



Hypothesized Pathways



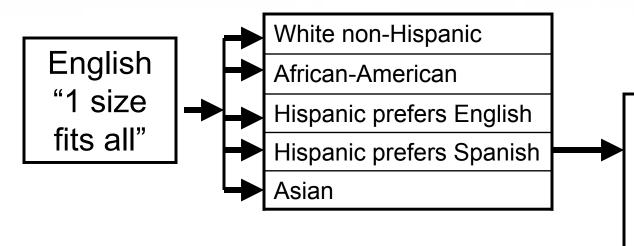




Evolution of CLAS to Personalization







Female, Age 47,
Mexican-born, living in
Texas, prefers
Spanish, Non-smoker,
BMI=34, Diabetic,
Low-carb. dieter,
walker



Action Steps for Applying CLAS to Disease Management



| 01 4 | |
|--------|--|
| Step 1 | Determine pop. distribution by segment (demographic, ethnicity/race) |
| Step 2 | Assess each DM component for sensitivity (ineffectiveness; potential for improvement) to CLAS issues |
| Step 3 | Identify and implement "quick hits" (e.g., translation of most used text materials) – apply 80/20 rule |
| Step 4 | Enhance/add personalization features |
| Step 5 | Track membership and outcomes on the basis of language preference, ethnic/racial group |
| Step 6 | Incorporate ethnic-specific applications within DM for optimal behavior change |
| Step 7 | Evaluate, monitor and improve |



Discussion



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Jim Price

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