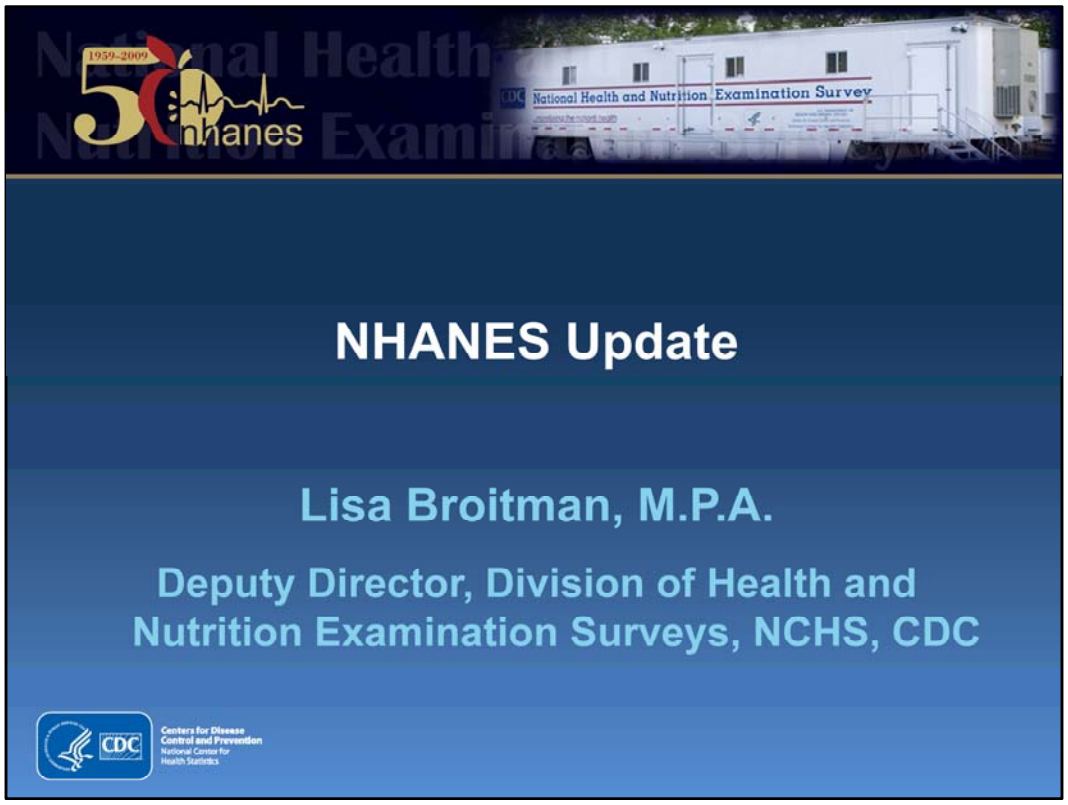


Pleasure to be here.

NHANES 2009-2010 data release

- Questionnaire files – 31 out of 60 (52%)
- Exam files – 6 of 14 (43%)
- Laboratory files – 40 of 63 (63%)

Released ~ 50% of the 09-10 files within the last 4 months which is all within 1 yr of the completion of data collection
This is on par with the 07-08 release even with all the additional tasks we have taken on in the Division over the last year, a few of which I'm going to tell you about today.

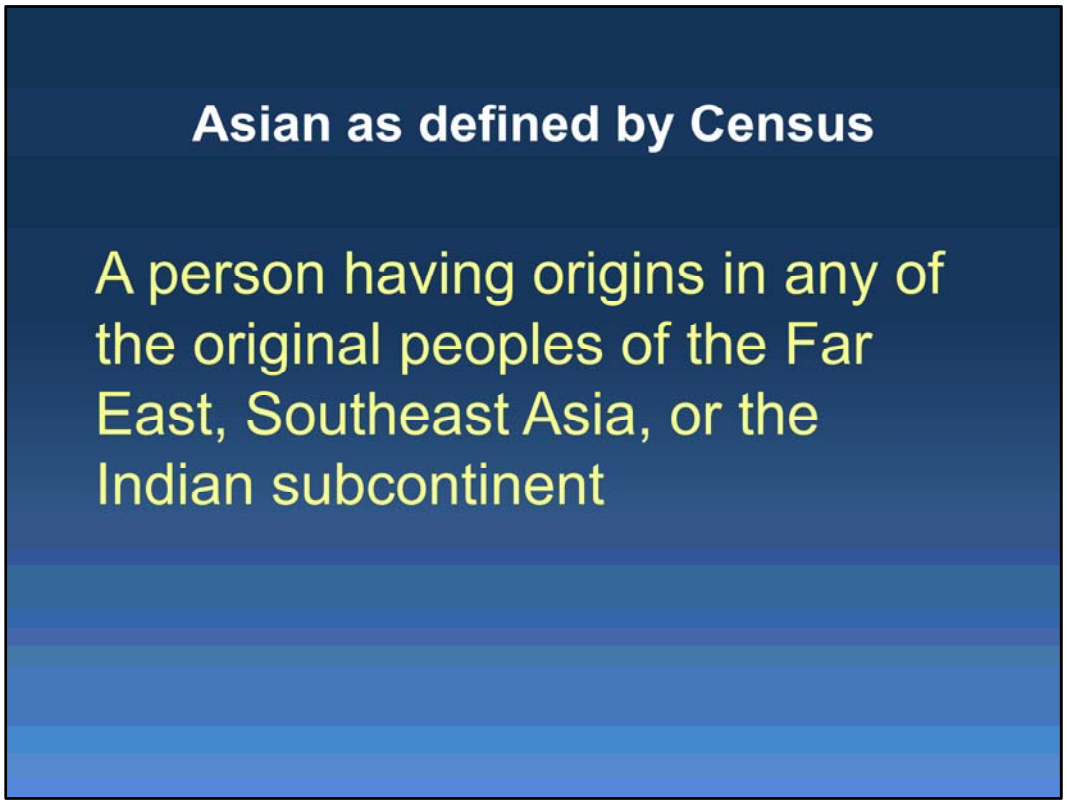
NHANES Oversamples : 2011–2014

- Hispanics
- African Americans
- Low-income whites
- Persons age 60 and older
- Asians (as defined by Census)

For 2011-2014, we've kept all the groups oversampled in 2007-10 and we've added Asians - as defined by the Census Bureau.

Before making this decision, we explored how much we'd have to change our screening efforts if we were to oversample Asians. We took a look at our paradata from previous survey years, to see how many Asians we encountered, but screened out because of the sampling algorithms associated with the white/other group in which they were included. We found that we could adjust the sampling strategy and without doing additional screening, find a sufficient number of Asians to achieve the Asian oversample. This was good, because no additional funding was being provided to make this happen.

We decided we could NOT oversample Native Hawaiian/Pacific Islanders (NHPIs) because the expected number based on our current screening would be too small to provide estimates without an increase in screening.



So who is included? Census defines Asian as . A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.

So for sample persons who identify themselves as being Asian, we are collecting detailed data on Asian origin or ancestry. There are 35 category options.

Sample sizes are not expected to be sufficient to

Expected Percent Distribution of Sample for 2007–2014

	2007–10	2011–14
Hispanic	32	25
Non-Hispanic Black	21	25
Other low income	13	13
Other non-low income	32	24
Asian	<2	14

So how does adding the Asian oversample in 2011-2014 change the overall NHANES sample design?

In order to increase the number of Asians in the survey, up from less than 2% to about 14%, the sample sizes for some domains will decrease.

The expected sample of Asians annually will be about 700, yielding`1400 in a 2 year cycle of 10,000 participants.

Challenges with the Asian oversample

- Communication
  - Translations
  - Interpretation
  - Outreach
- Response rates

Translations

- Chinese –
  - Mandarin (written and spoken)
    - » Simplified
    - » Traditional
  - Cantonese (spoken)
- Korean
- Vietnamese
- Other languages for a select few documents

Prior to adding the Asian oversample, NHANES was conducted in English and Spanish. Our ability to provide Spanish translations and an extensive bilingual staff evolved slowly over the past 30 years. Clearly we are not going to be able to START our efforts with the Asian oversample on par with what we are able to provide our Spanish speaking participants. Particularly when we must deal with multiple languages. So we view this as a starting place and a process of continual improvement as we learn how to work with the various Asian populations.

Looking at the locations that have been selected for the next four years, the populations we expect to encounter in those locations, and consulting with APIAHF, we made the determination to translate materials into the following languages.

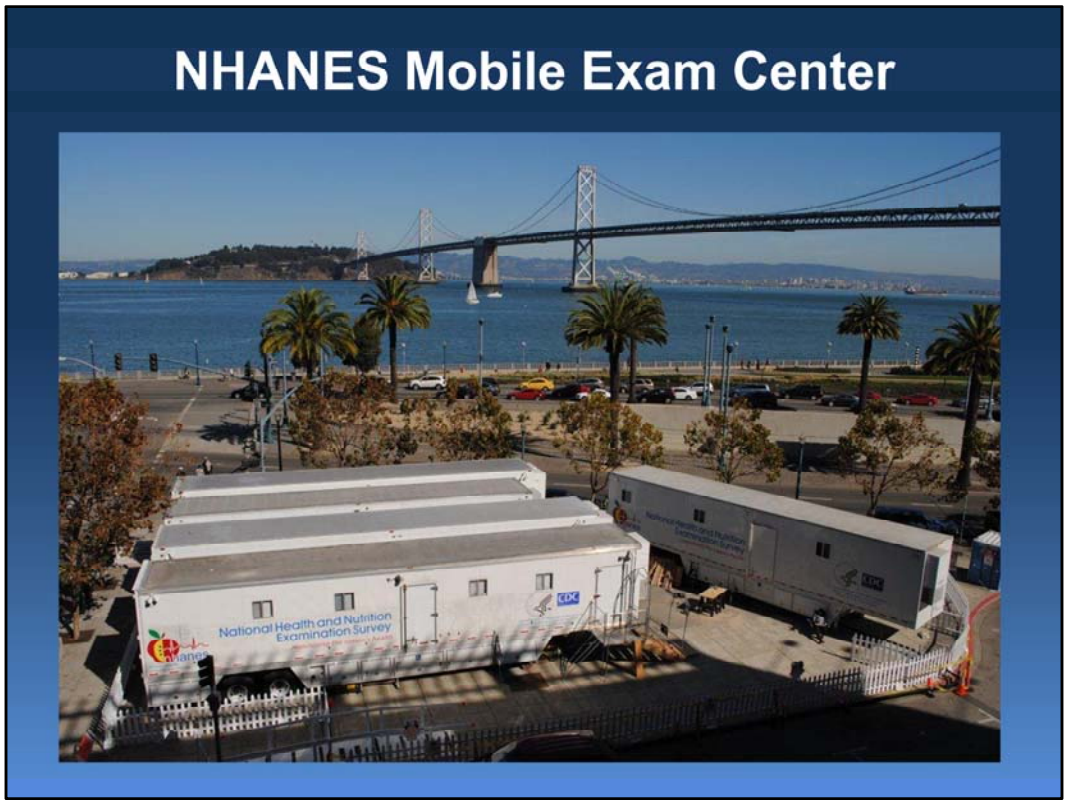
The translation process for Spanish documents is a back and forth collaboration between Westat, our data collection contractor, and NCHS. We felt we should maintain that model for C, K, and V, but we also had to involve a professional translations firm as well, as we did not have the capacity for this volume of translations. But similar to the process for Spanish translations, native speakers of each of these languages, who are familiar with NHANES, review the professional translations to be sure the meaning of the questions or phrases come through properly.

I'd like to show you a few examples of what happens when you don't take this step with translations.

It's really important that we use the right words to describe what we mean otherwise we commit errors like you see here where Superman becomes Batman.

In a translation regarding our hearing exam, the phrase "a probe will be inserted in your ear" was translated as "a needle will be inserted in your ear." I don't know about you, but I'd refuse to participate in an exam described to me that way.

If we are very literal in our translations, people will miss the point, or have a very different understanding of what we mean. We ask people to come to our mobile exam center or MEC for the health exam. The exam center is actually 4 of the trailers like are pulled behind big trucks to a location and parked there. They are specially outfitted as a clinic inside with passageways to connect them. Mobile Examin Center Van: was translated verbatim as "moving exam center box-type car"



I'm not sure that that description would bring a picture similar to this to your mind. But then again, maybe there are some things that just won't translate well.

Translations

- Advance letter
- Endorsement letters
- Consent forms
- Reminder letter/instructions
- Safety exclusions
- Exam center instructions
- Post exam instructions
- Outreach materials
- NHANES website participant page

So we have taken extreme care in our translations to make sure the <u>true</u> meaning comes across. We are extremely fortunate to have C, K, and V native speakers on our staff. For a survey as complicated as NHANES, it has been critical to have reviewers who have an understanding of the subject matter.

Our focus on translations has been on documents for the participants and aids for interpreters. Approximately 200 documents have been translated , reviewed and corrected to date.

Interpreters

- Family members or friends
- Use local organizations to identify other interpreters
- Language line services

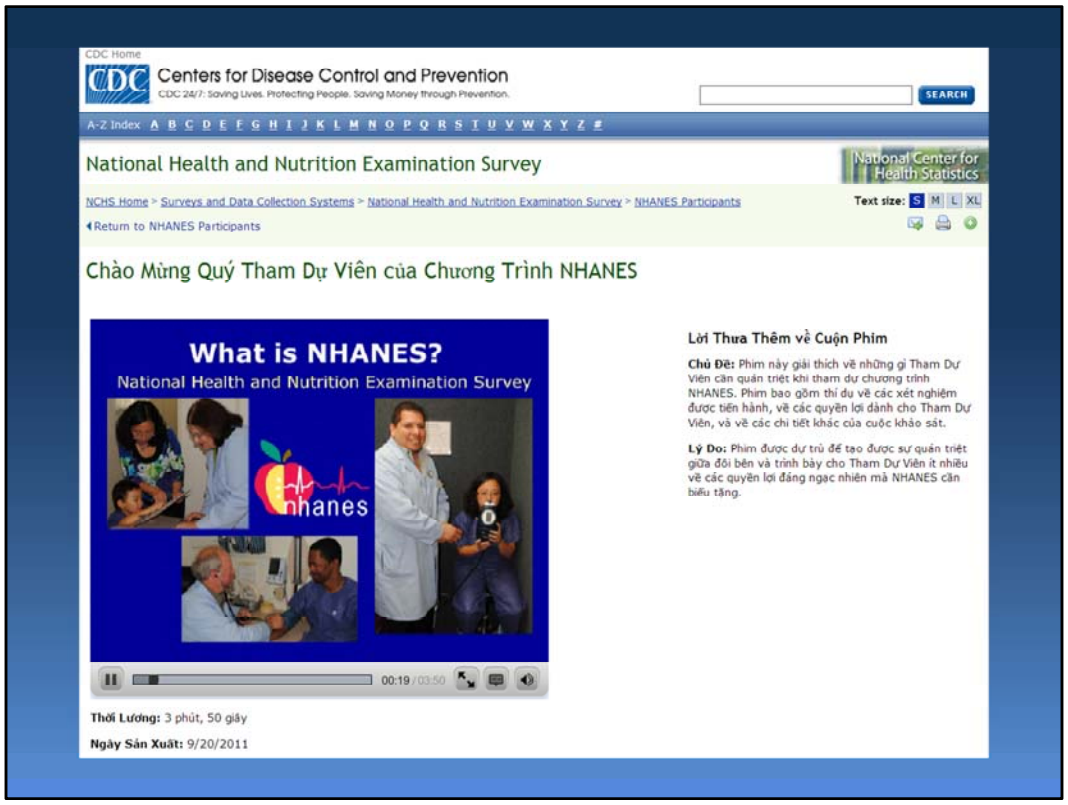
When we do have language and communication issues, we first try to use family members or friends when available for those who are unable to complete the interview and exam in English or Spanish.

But we have the added support of local organizations such as the Health Department to help us ID qualified interpreters. The APIAHF has been connecting us with their member organizations and colleagues in the areas we go to whenever possible.

We're using language line services for things on the backend such as giving STD results or speaking with our medical officer, Dr. Porter with questions about the exam or the participant's report of findings.

Clearly we need materials targeted to Asian participants similar to the targeted flyers we have for other populations, and we've worked closely with the APIAHF to create the flyer in the middle here.

All these materials and more are available in C, K, V and we have a few items translated into other languages as well.



This an example from our participants page on our website.
The participants page includes a short video that explains what is involved for the sample participant when participating in NHANES.
This video was designed to promote interaction and to show sample participants some of the benefits NHANES has to offer.

Endorsement Letters

- Asian American Justice Center (AAJC)
- Asian & Pacific Islander American Health Forum (APIAHF)
- Asian Pacific American Labor Alliance (APALA)
- Asian Pacific Partners for Empowerment Advocacy and Leadership (APPEAL)
- Association of Asian Pacific Community Health Organizations (AAPCHO)
- Boat People SOS (BPSOS)
- Hmong National Development, Inc. (HND)
- Japanese American Citizens League (JACL)
- Laotian American National Alliance (LANA)
- National Alliance of Vietnamese American Service Agencies (NAVASA)
- National Asian American Pacific Islander Mental Health Association (NAAPIMHA)
- National Asian Pacific American Women's Forum (NAPAWF)

Our interviewers carry with them a binder of different materials related to the survey that they rely on to encourage people to participate in the survey.
We typically get endorsement letters from the Health Department, the local Area Agency on Aging, universities, and National, local or regional organizations.
APIAHF worked on our behalf to obtain endorsements from all the organizations on this slide,

Endorsement Letters

- National Asian Pacific Center on Aging (NAPCA)
- National Asian Pacific Center on Aging (NAPCA)
- National Association of Asian American Professionals (NAAAP)
- National Coalition for Asian Pacific American Community Development (CAPACD)
- National Council of Asian Pacific Islander Physicians (NCAPIP)
- National Federation of Filipino American Associations (NaFFAA)
- National Korean American Service & Education Consortium (NAKASEC)
- OCA
- South Asian Americans Leading Together
- Southeast Asian Resource Action Center

And on this slide, and consolidated them into one endorsement letter.

Media Coverage

San Francisco Chronicle

SF health team to ask diet questions, take samples

Victoria Colliver, Chronicle Staff Writer
Saturday, November 12, 2011

PRINT E-MAIL SHARE COMMENTS (8) FONT | SIZE:

Brant Ward / The Chronicle

Phlebotomist Vicki Pietz (left) prepares to draw blood in her trailer for the federal survey.

In four 50-foot white trailers located near the Embarcadero in San Francisco, federal researchers will begin examining, measuring, testing and querying selected residents today about virtually every aspect of their health and what they eat.

49 Tweet 24 share 0 +1

It's part of the largest and longest -running health analysis in the

We always try to get local media coverage, and in SF we actually held a press conference with well known persons in the Asian communities to try to raise awareness.

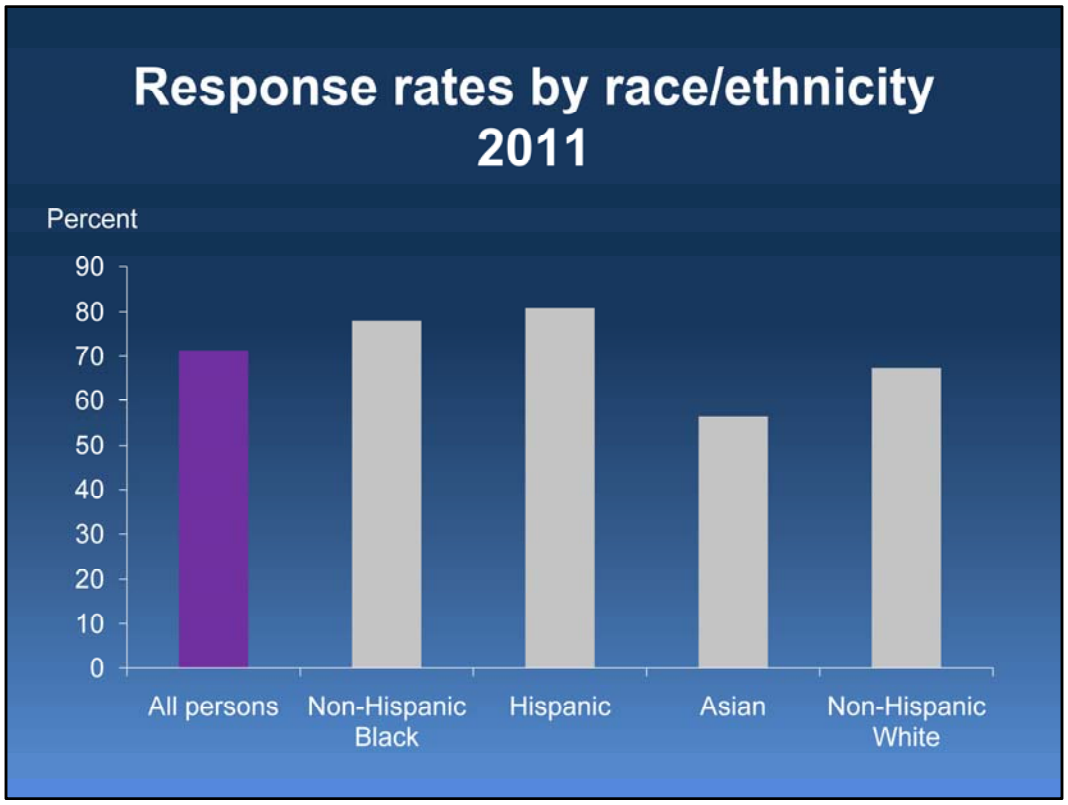
NHANES Key Response Rates
MEC Examined By NHANES Cycle

NHANES II	73
Hispanic HANES	73
NHANES III	78
NHANES 1999–2004	77
NHANES 2005–2006	77
NHANES 2007–2008	76
NHANES 2009–2010	77
NHANES 2011	71

Response rates are indicated as percentages

Even before adding the Asian oversample, we were extremely devoted to our outreach efforts and we believe that has been one of the keys to maintaining response rates consistently above 70% over the years while other surveys have declined.

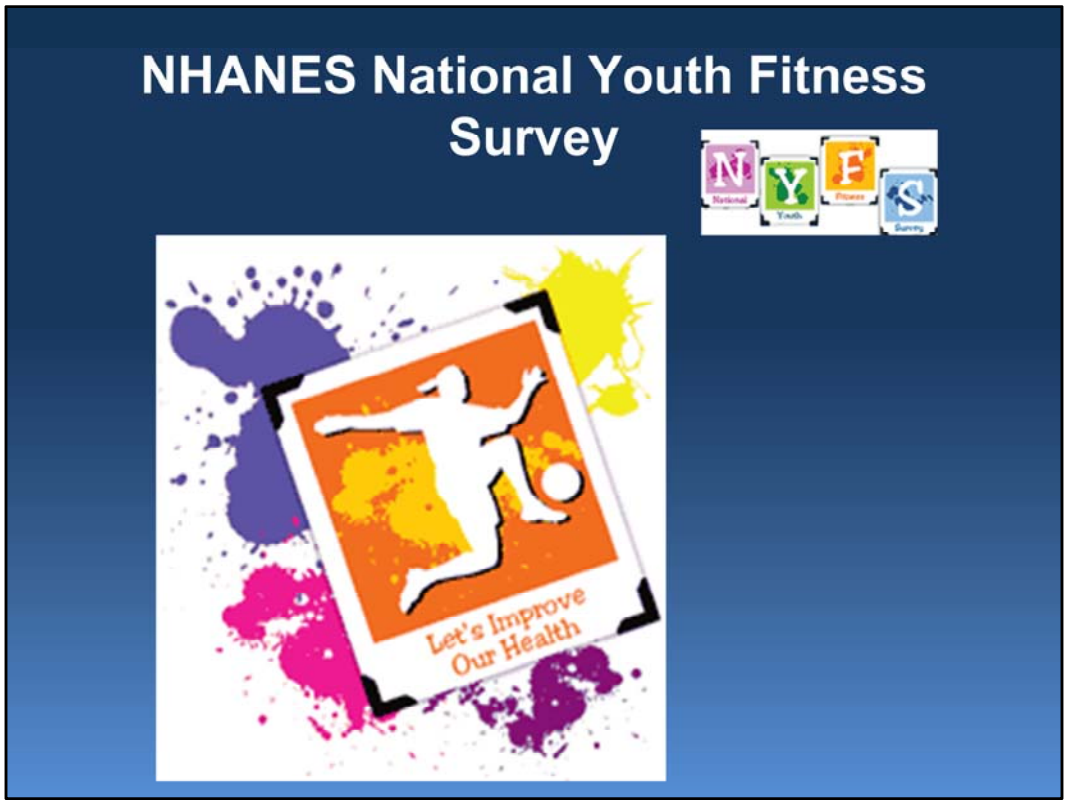
While we're not sure we can attribute the decline in the response rate in 2011 entirely to the addition of the Asian oversample, we definitely feel it is a factor.



What may be more instructive is to look at response rates by race/ethnicity.
You can see that Asians are lagging behind all other groups at less than a 60% response rate.
This may be considered great by some, but it is a bit below what we strive for in NHANES.

Response rates are down for the year for nearly all groups, but participation rates by Asians to date lag the participation rates of other groups by as little as 11% and as much as 24%.

Our hope is that as we continue to develop and hone our outreach strategies, and more and more Asian Americans learn about NHANES and the contribution they can make to understanding the health status of Asians in the U.S., the participation rate by Asians eventually will equal or surpass the rate of other groups.



As you'll recall, the NYFS was designed to provide current information on the physical fitness levels, physical activity and dietary behaviors of American youth.

It is the first national study to include both fitness and nutrition measures on youth ages 3-15.

Challenges in Planning the Feasibility Study and NNYFS

- Time
- Funding
- Space
- Scheduling

Challenges in Planning the Feasibility Study and NNYFS

Limited time for planning and implementation:

- Feasibility Study – five months from conference call with expert consultants to start of study.
- NNYFS – three months from end of Feasibility Study to start of 1st NNYFS dress rehearsal.
- Refurbishment of NHANES trailers – less than six months from initial discussions on modified layout to start of 1st NNYFS dress rehearsal
- Record planning and implementation for NHANES

Conference call with expert consultants to identify possible NNYFS components on Feb 22, 2011
First meeting with data collection contractor, Westat, on March 17.
Feasibility study conducted June 27-July 28 in Gaithersburg Maryland with DHANES staff in Community HANES trailer.
Four weeks of packed training on conducting exams and safety and administrative issues in October.
Start of exams for 1st dress rehearsal stand on Nov 1.
Schedule also included OMB and ERB submissions for both the feasibility study and the NNYFS.
Trailer refurbishment included development of a detailed statement of work, a competed contract, and inspections by Westat and Government staff. Unused NHANES trailers that had been replaced were refurbished.
Planning for new components in NHANES normally begins 1-2 years before implementation. We were able to implement a new survey in just 8 months.

Challenges in Planning the Children's Feasibility Study and NNYFS

Funding

- Feasibility Study – limited ACA funds provided, study conducted by DHANES staff.
- Refurbishment of NHANES trailers – delayed receipt of ACA funds led to very tight delivery schedules.
- NNYFS – planning began without assurance of ACA funding.
- When received, one-year ACA funding for trailer refurbishment and NNYFS was limited.

$345 K for feasibility

Were not able to fund things like travel for program administration oversight and analysis of results.

NNYFS Mobile Center

Challenges in Planning the Feasibility Study and NNYFS

One trailer to accommodate 10 NNYFS components

Component	Age Range (years)
*Anthropometry	All
*Physical activity monitor (accelerometer)	All
Treadmill	6-15
Modified pull-up	5-15
Plank	All
*Grip strength	6-15
Lower body muscle strength	6-15
Test of Gross Motor Development (TGMD-2)	3-5
*Dietary recall (1 day)	All
*CAPI/CASI	12-15

Anthropometry, physical activity monitor, grip strength, dietary recall, and CAPI/CASI questions are also administered in the NHANES MEC. Two days of dietary recall data are collected in NHANES, one a telephone follow-up
Treadmill has two protocols: performance endurance for 6-11 years, aerobic capacity for 12-15 years
TGMD version 2 assesses coordination and balance, important for participation in physical activity. Locomotor skills such as running and hopping and object skills such as catching and kicking a ball are assessed. Trailer refurbishment included widening of a portion of the hallway to accommodate the TGMD locomotor skills.
CAPI consists of physical activity questions to be answered by the participant if not answered in the home; CASI consists of a few selected questions on alcohol and drug use, and smoking.

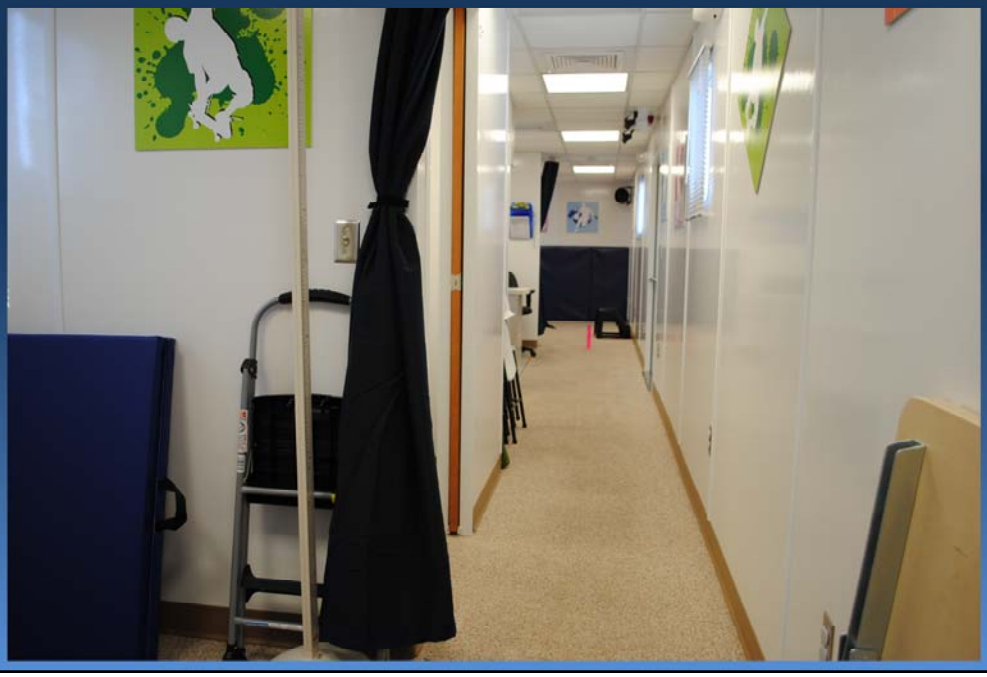
Because of our limited funding, examination time and space, as well as the need to plan a survey rapidly we decided to emphasize measures related to fitness and strength **other than** flexibility in this relatively narrow age range of 3-15. During the brief period in the spring of 2011 when we spoke to some physical activity and fitness experts there was a discussion of flexibility. In particular, these three measures were mentioned: sit-and-reach, backsaver sit-and-reach and a shoulder stretch. Some of the comments we had in our notes were “no guidelines for health outcomes related to flexibility” and “there is limited predictive validity of flexibility for health outcomes”. Knowing from the onset that time and space would be extremely limited we asked those we consulted what would be the highest priority components and none ranked flexibility in this category.

Because people want to know what the plank is – here's a slide of the front plank position done in the NNYFS for assessing core strength. Plank is often included in yoga or core fitness routines.

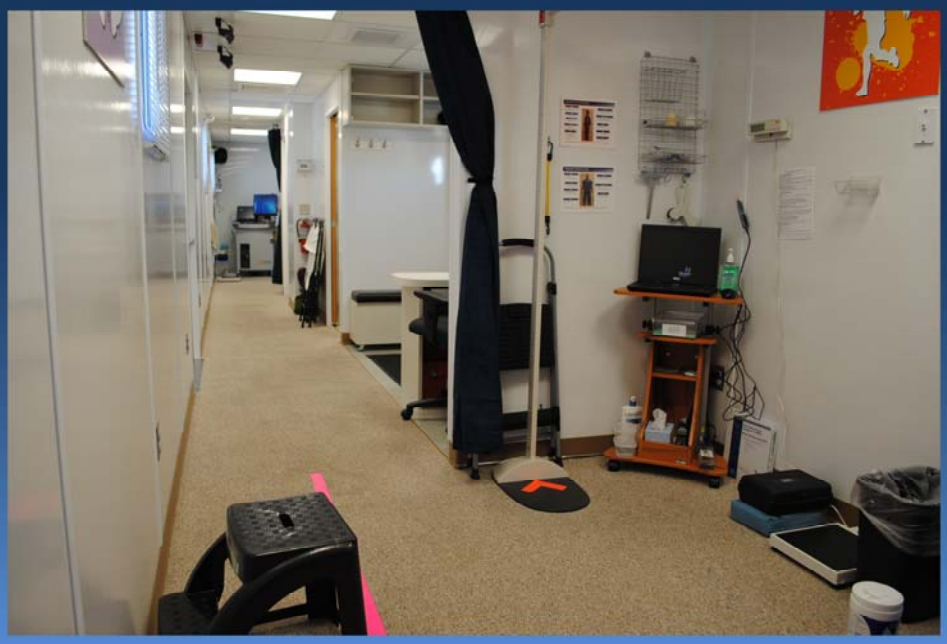
Challenges in Planning the Feasibility Study and NNYFS

- NNYFS staffing and exam scheduling for collection of data from 1500 participants:
- Staffing
  - Two exercise physiologists
  - Two nurse practitioners\physician assistants (one fluent in Spanish)
- Scheduling
  - Accelerated screening and appointing
  - 2 ½ to 3 weeks per stand (NHANES 5-6 weeks)
  - Average 100 participants per stand

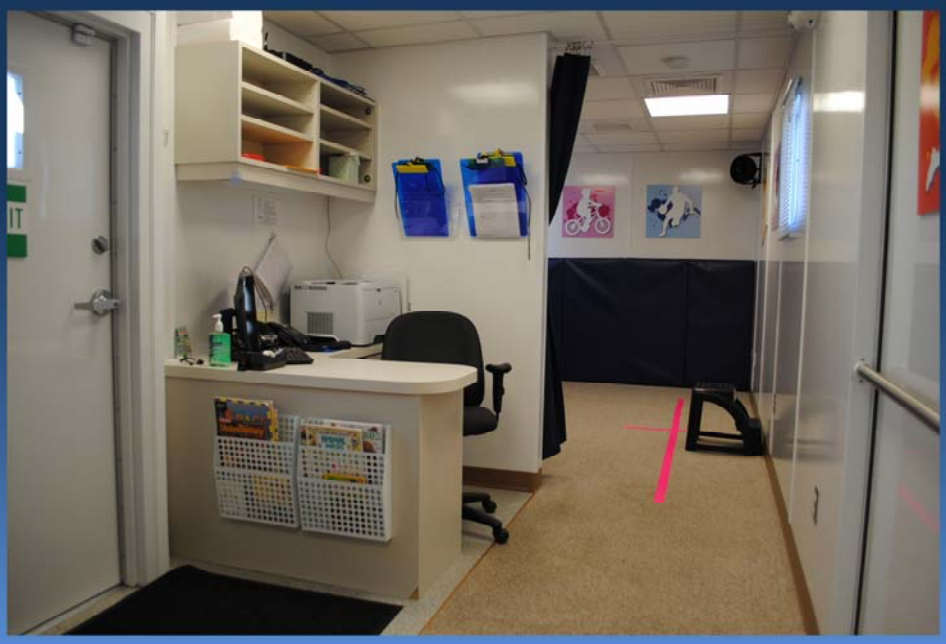
View from Exam Room 2 to Exam Room 1



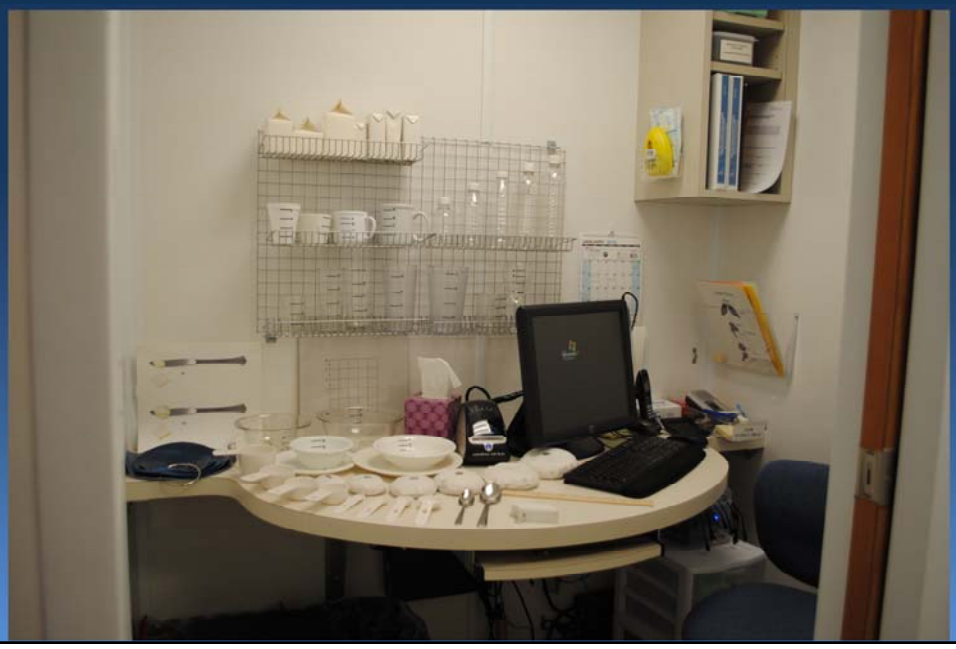
View from Exam Room 1 to Exam Room 2



Coordinator Area



Dietary Recall and Interview Room



Challenges in Planning the Feasibility Study and NNYFS

Insufficient trailer capacity for some components suggested by expert consultants:

- Length for 20-meter shuttle or Pacer
- Height for vertical jump
- Steadiness for broad jump
- Space for cycle ergometer

We would need a variety of cycle sizes to accommodate children ages 6-15 and opted for the 'one size fits all' treadmill to assess performance endurance and aerobic capacity.

NNYFS Status

- Two dress rehearsals completed in 2011:
  - Nov 12-Nov 30
  - Dec 6 – Dec 21
- First stand of 2012 completed on Jan 29
  - Response rate 69% (79 examined)
- Last stand of 2012 ends Dec 19
- Funding for future years uncertain

Because the number of examined participants for the first actual NNYFS stand was lower than anticipated, we are monitoring the exam schedule closely and making changes to add more exam days where possible.

Proposed Content Changes for NHANES 2013-2014

Solicitation for Content Changes for 2013-14

- Deadlines (Letters of intent)
  - Examination February 28, 2011
  - Questionnaire April 15, 2011
  - Laboratory June 1, 2011
- Input solicited from current and past collaborators, on NHANES website and via NHANES newsletter

.

Proposed Content Changes for 2013-14 (Content cycling out)

- Tuberculin skin testing
  - Continue QuantiFERON blood test
- Respiratory Health (2007-12)
  - Exhaled Nitric Oxide
  - Spirometry with bronchodilator

.

NHANES-NHIS Questionnaire Comparability for 2013-14

- All questions on the NHANES and NHIS will be compared
- Both surveys will modify questions so that the same information is collected with the same question
- In some instances one or the other survey will have greater detail on a topic but there will be common questions

Proposed Content Changes for 2013-14 (Exam)

- Human Papilloma Virus swab collection in males ages 14-59
  - Currently females collect a vaginal swab
  - Currently serum HPV antibodies ages 14-59
- Bone density 50 and older
  - Femur, spine and lateral spine (1st time)

Proposed Content Changes for 2013-14 (Exam)

- Oral Health—Add digital photos to assess fluorosis ages 6-19 and the following additions to the laboratory component
  - Fluoride in drinking water
  - Fluoride in urine ages 6-19
  - Fluoride in plasma ages 6-19

Proposed Content Changes for 2013-14

- 24 hour urine collection on 1/3 sample
  - Sodium, creatinine, potassium and chloride
  - Iodine
  - Microalbumin

.

Proposed Content Changes for 2013-14 (Questionnaires)

- Institute DHHS Data Collection Standards (race, ethnicity, gender, language)
- Awareness of hepatitis infection
- Age of onset of genital warts
- Modification of SNAP questions based on Texas linkage project

DHHS standards
Guam and Samoa separate
What is your sex
How well do you speak English
DHHS OMH says every survey has to ask these questions.

Proposed Content Changes for 2013-14 (Questionnaires)

- Modified smoking questions
- Infertility (1 question)
- Modified MyPyramid awareness questions to account for the new MyPlate program
- Reinstitute 8 questions on use of nutrition information on food eaten away from home (2007-10)

Smoking – ask in different order, drop and add

Proposed Content Changes for 2013-14 (Other laboratory)

- Multiple chemicals and metabolites related to tobacco exposure
- Potentially a second blood test for tuberculosis infection—T-Spot

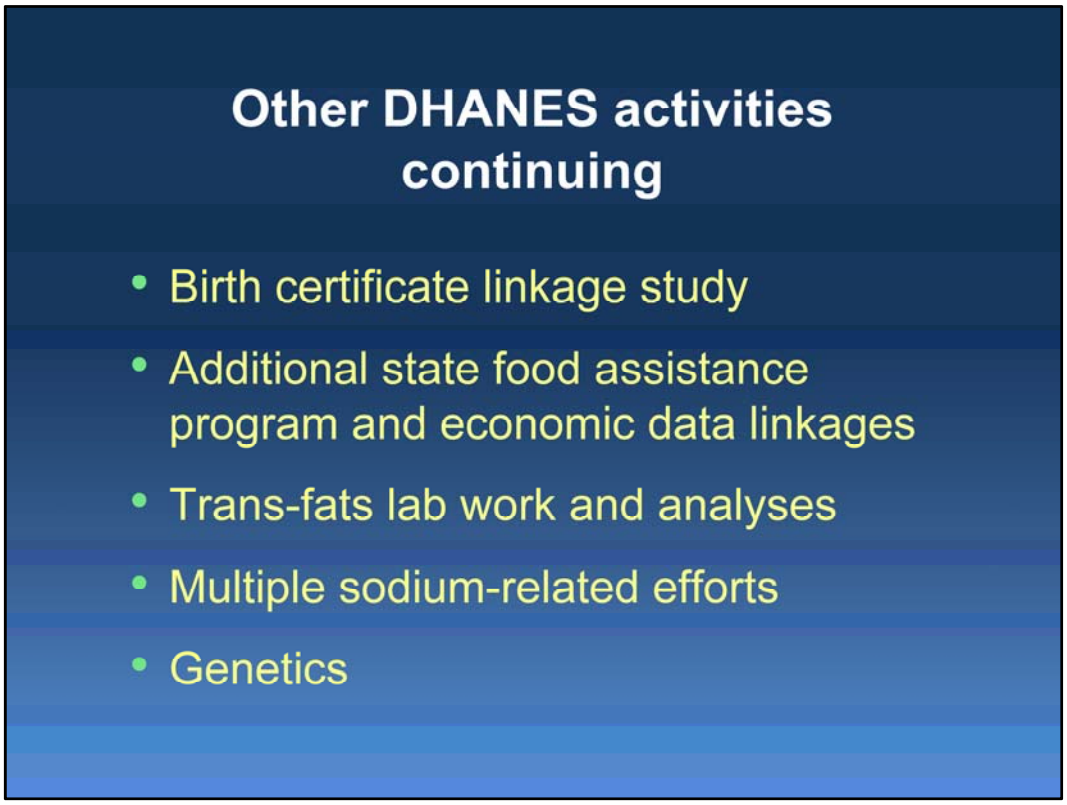
.

Evaluation criteria

- All proposed content is feasible
- All proposed content complements or extends existing content
- All proposed content is of public health importance

Pilot testing for NHANES 2013-14

- 24 hour urine
- HPV swab in males
- Digital photos for fluorosis



- The **BCLS** will link BCs to the children sampled in NHANES (2005-2010) who were aged 5-10 years old at the time of their survey participation.
- Linking these children's NHANES data to their birth certificates will help provide information on issues such as the impact of birth weight status on growth status, anthropometry and obesity etc. for children.
- NHANES contains a variety of information relevant to the evaluation of child health, and growth and development.
- BC linkage to this NHANES data allows this evaluation to be done in relation to a child's status at birth.

- Regarding **food assistance program linkages**, we currently have a project underway in collaboration with USDA's ERS to assess the reliability/ accuracy of self-reported food stamp benefit receipt from NHANES questions by comparing the responses to administrative records in the state of Texas. We anticipate expanding this to link with other states' administrative data.

Thank you

謝謝您

谢谢

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Cám ơn