REACHING OUR YOUTH THROUGH ACTIVE SCHOOLS AND COMMUNITY PROGRAMS

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Childhood Obesity in AI/AN 2015

BMI greater than or equal to 95th percentile

Obesity and Overweight in American Indian and Alaska Native Children, 2006-2015 – A. Bullock, MD; Karen Sheff, MS; Kelly Moore, MD; and Spero Mason, PhD.
Middle School Years – Obesity at much higher rates

![Graph showing the percentage of children in different BMI categories by age.]

% of Children

Age, Years

BMI < 85th percentile

Obese: BMI ≥ 95th percentile

Overweight: BMI ≥ 85th but < 95th percentile

Note. BMI = body mass index (defined as weight in kilograms divided by the square of height in meters).

FIGURE 1—Body Mass Index Category for American Indian and Alaska Native Children by Year of Age for Fiscal Year 2015, United States
Opportunities to be Active

The Physical Activity Hourglass

- **Pre School and Elementary**: Multitude of opportunities to move.
- **Secondary School**: Limited to school sports and intramurals
- **Adults**: Multitude of opportunities
Self Efficacy and Physical Activity

• Many adults have never felt success with exercise
• Build self-efficacy (a feeling that you can be successful)
• Strongest predictor of lifetime adherence to Physical Activity
• Important to build feelings of efficacy for Physical Activity early in life

“Only 5 percent of all Americans play a team sport regularly beyond age 25. The number is barely a fraction of that by the time people reach 45.”

Dr. Robert Pangrazi, Arizona State University
Comprehensive Model

- Multiple Components
  - Employee Wellness
  - School Based Programs
  - Elder Wellness Program
  - Community Fitness Classes
  - Community Weight Loss Program
  - Community Walking Program
  - Adult and Youth Camps

- Multiple Settings

- Wide Range of Risk

- Varied Teaching Methods
Best Practices for Providing Physical Activity in Native Communities

- Provide choices
  - Providing opportunities to move for all age groups throughout the life cycle
- Target entire families and communities for PA lifestyle change.
  - Schools are key for reaching families and connecting families to your health care facility
    - School wellness nurse
    - Family Fitness Nights
    - Runs and Walks geared to the family
- Work together with like-minded community organizations
  - Community Coalitions
  - School Wellness committees
  - IHS
  - State Health Department
Promote pedometer based walking programs in your community
  • Based on the evidence that every step counts – There is no wasted steps.
  • 10,000 steps per day 12,000 and above for weight loss
  • Get a good pedometer

“I tell people that going for a run or brisk walk is like taking a little bit of Prozac and a little bit of Ritalin”

“Even 10 minutes of activity changes your brain.”

— John J. Ratey, Spark!: How exercise will improve the performance of your brain

Indian Health Service Best Practice – Physical Activity for Diabetes Prevention and Care, 2011
Movement Break

My Body lies over the sofa
My Body watches too much TV
My Body drinks way too much Soda
Please Bring Back my Body to me!

Bring Back
Bring Back
Bring Back

Oh Bring Back my Body to me, to me

Bring Back
Bring Back
Bring Back

Oh Bring Back my Body to me.
We accommodate the community
Listen to what the community wants, when they want it, and where they want it
Create opportunities for physical activity
Keep them informed
Newsletters, mail-outs listing monthly classes/events, radio announcements
Take into account all the influences (Systems Approach)
Family
Ceremonial Grounds
Social Network
Public Policies
Church
School
Worksites
Cultural Values
Youth & Family Programs

School-Based
• Move It! and Prevent Diabetes
• School Wellness Nurse
• Let’s PLAY - *Physical and Lifelong Activity for Youth* (2 Day Workshop)
• School Gardens

Summer Camps
• Go PRO (Preventing and Reducing Obesity)
• Diabetes Prevention Camp
• Jump Rope Camp

Before and After School
• Hop to Stop Diabetes! (Jump Rope)
• BOKS (Before School Physical Activity and Nutrition)
  “Priming the Brain for Learning”

Adult & Family
• Elder Wellness
• Community Fitness & Water Aerobic Classes
• Personal Training
• Community Walking Program
• Diabetes Management Camp
• Community Gardens (Elder Centers and Clinic)
School Based Prevention

- Schools with a higher percentage of American Indian Students
- Schools agree to changes in PE and School Health Environment
- 3 year program with sustainability plan for continuing the program into the 4th year and beyond
- Bi-weekly PE classroom demos and yearly PE workshop provided to all Move It! program PE teachers.
- School Wellness Nurse continues to work with the Move It! schools on a weekly basis
- Based on the Let’s Move! Active Schools model for increasing physical activity in schools.

"Move It" and Prevent Diabetes

Wewoka Indian Health Center Community Health Program
Let’s Move Active Schools

Physical Education

- Quality Physical Education
- Physical Activity Before and After School
- Physical Activity During School
- Staff Involvement
- Family and Community Involvement
New PE
Promoting Health and Preventing Disease

- Lifetime approach to fitness
- Nutrition concepts integrated
- Technology
  - Heart Rate
  - Movement based classroom
- Personal improvement is the goal
  - Everyone’s 100% is different
  - All Kids Feel Success with PA
- Makes Fitness Fun and Meaningful
  - Camouflage Fitness
- Class Design
  - Instant Activity
  - 50% or greater time spent in MVPA
### Strategies to Change the School Health Environment

- **Changes in School PE instruction and content**
  - Lifetime Fitness and MVPA
  - Developmentally appropriate practices
- **Addressing what the kids are doing outside of School**
  - Exercising for *Move It!* coupons
- **School Wellness Policy**
  - *Smart Snacks in Schools*
  - *Recess*
  - *Quality PE*
- **Diabetes Prevention Education**
  - What is Diabetes, Risk Factors, Warning Signs, Benefits of Exercise, How to Eat Healthy at Fast Food Places
  - Eagle Book Series – K-2

<table>
<thead>
<tr>
<th>Staff training</th>
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<tbody>
<tr>
<td>Let’s PLAY PE Teachers workshop</td>
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<tr>
<td>Pre-service school wellness staff training</td>
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<tr>
<th>School Staff Wellness</th>
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<tr>
<td>Weight loss competition</td>
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<td>Pedometers</td>
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<table>
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<tr>
<th>Wellness Messages</th>
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<tbody>
<tr>
<td>Less sedentary activities</td>
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<tr>
<td>More water/unsweetened beverages – Less sugary beverages</td>
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<tr>
<td>More fruits and veggies</td>
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<th>Fitness Testing</th>
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<td>Fitnessgram</td>
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<table>
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<tr>
<th>Family Involvement</th>
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<tbody>
<tr>
<td>Family Fun Nights</td>
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<tr>
<td>More coupons for family exercise</td>
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We met with each school’s Wellness Policy Council and made revisions to the Wellness Policies at Konawa, Justice, and Sasakwa.

Each policy was approved by the School Superintendent and School Board.

We presented the new Wellness Policies to the school staff at each school’s pre-school in-service days.

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**Move It! Program Outcomes**

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<tr>
<th>Exercise</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Mile</td>
<td>29%</td>
</tr>
<tr>
<td>Push-Ups</td>
<td>51%</td>
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<tr>
<td>Sit-Ups</td>
<td>61%</td>
</tr>
<tr>
<td>Sit &amp; Reach R</td>
<td>35%</td>
</tr>
<tr>
<td>Sit &amp; Reach L</td>
<td>45%</td>
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<tr>
<td>Trunk Lift</td>
<td>55%</td>
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Two year program targeting schools with 50% American Indian student population

2017-18 school year, 5 schools 3rd-8th grade students

Weekly practices
Jump rope performances
Jump Rope for Heart
Jump Rope Camp

Program is set up to be sustained by the school staff trained during the first 2 years
40.3% of the students improved their BMI %ile – 8.9% increase from FY15

**Pre/Post Testing**

**One minute jump test** – 85.7% improved
Group average Pre Test was 84 jumps and at Post 118 jumps

**Jumps without a mistake** – 83.2% improved
Group average Pre Test was 68 jumps and at Post 141 jumps

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<thead>
<tr>
<th></th>
<th>Improved</th>
<th>Improved</th>
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<tbody>
<tr>
<td>BMI %ile</td>
<td>48.0</td>
<td>40.3%</td>
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<tr>
<td>Jumps per min</td>
<td>102.0</td>
<td>85.7%</td>
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<tr>
<td>Jumps w/out missing</td>
<td>99.0</td>
<td>83.2%</td>
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Summer Jump Rope Camp

- 3 Days – 140 students
- Part of our Hop to Stop Diabetes Program
- *Bouncing Bulldogs* from Chapel Hill, NC facilitate the camp
- Sustainability tool for school jump rope teams
- Eastern Oklahoma State Jump Rope Championships
  - 1<sup>st</sup> year 4 school 50 kids
  - Last year 6 schools 100 kids
- Partnered with local community coalition, local schools, IHS HPDP, Oklahoma Food Bank
Summer Youth Fun and Fitness Camp

GO PRO
Preventing & Reducing Obesity

- Diabetes, Exercise, Nutrition, and Tobacco Education
- Ropes course
- Soccer clinic
- Games and activities
- Healthy snack preparation
- Diabetes Risk Assessment - shared with parents
- Trip to water park (White Water Bay)
- Follow up lab test and prevention program for high risk campers and their families
  - BMI > or = 95th %ile
  - Acanthosis Nigricans
  - Elevated blood sugar, lipids, and insulin levels
Sustainability and Capacity Building
Is it a Program or an Event?

- **Move It! Program**
  - Three year program
    - 1st year Diabetes Staff implements program
    - 2nd year PE teacher training
    - 3rd year PE teacher prepares to take over the program
  - Teacher Training
    - Let’s PLAY workshops
  - PE equipment each year
  - School Health Policy
  - Staff Wellness

- **Hop To Stop Diabetes!**
  - School teacher trained the first year
  - Jump Ropes
  - Staff is trained to cover all programs
    - Learn from each other
  - Tribal support and funding of community programs
  - Community leadership in the Walking Program
  - Elder Gardens – Elders take over planting and caring for gardens
  - Partnering with other programs

*When we move on, will the program continue?*
Personal improvement is the goal
Tracking of patient encounter in the community done through “Group PCC”
Participation
BMI – adult and youth
Body Fat %
Blood Pressure
Lab Tests
Acanthosis Nigricans
Youth Diabetes Risk Assessment – Family session
  - Acanthosis screening, lifestyle questions, family history, BMI %ile

Pre & Post Knowledge Tests
Parent, Teacher, Program Participant Satisfaction Questionnaires
Physical Fitness Testing – students and elders
  - Fitnessgram
  - Senior Functional Fitness Testing
Miles, Steps, and Minutes
  - Numbers improving to 150 minutes per week of walking
Jump Ropes Skill and Endurance Test
  - Number of Jumps in 1 minute
  - Number of jumps without missing
Things We “Think” We Have Learned

- Work with the Tribal Government for program funding
- Wellness Policy Development
- Schools are where the kids are
- Invest in the school or group
- Evaluate
- Use community resources – give them ownership
- Community Prevention Team
- Sustainability and Capacity Building
- Is it a program or an event?
Areas for Improvement

- Programming for “High Risk” youth
  - Camp NEW You (Nutrition, Exercise, and Weight Management) (http://campnewyou.org/)
  - West Virginia University Program

- Understanding prevention and health promotion in our complex tribal society
  - Unique and diverse values, beliefs, and traditions
  - Best prevention approach to facilitate change
    - Behavioral – Social – Environmental – Combination

- Prevention is a long-term investment. It’s not going to pay off in just a year. It may be a generation.
Tribal Collaborations

- **Muscogee (Creek) Nation** Diabetes Program, Elderly Nutrition Program, Childcare Program, and JOM Program

- **Cherokee Nation** HPDP
  - PLAY workshop
  - Summer Youth Camps

- **Chickasaw Nation** Get Fresh Cooking Program

- **Oklahoma City Indian Clinic**

- **Oklahoma Intertribal Diabetes Coalition (OIDC)**

- **Seminole Nation** Housing Authority and Tribal Youth Program
  - After School Program
  - Spring Break Day Camp

- **Seminole Nation** SDPI Program

- **Seminole Nation** Food and Nutrition Distribution Services

- **Seminole Nation** Head Start
  - Provide yearly nutrition and physical activity in-service
Our Vision...
10 years from now....

I picture a Wellness program that is still not dependent on facilities and the people coming to us. I picture us still out in the community with the people providing programs at churches, schools, community centers, and ceremonial grounds. I picture community members taking ownership of their health and the health of the community by leading program and teaching classes alongside health professionals. I see a stronger partnership between the Indian Health Facilities and schools. Schools have such an impact on the health of our children so I feel our tribes and health systems should invest in providing a healthier environment in the schools our kids attend. I do hope for exercise facilities in our area of Oklahoma some day in the future but community based programming is vital for Indian communities because that is how we have stayed healthy for ages, as a community
Contact Information

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