The MD Anderson and CATCH Partnership to Advance Youth Cancer Prevention

featuring Dr. Ernest Hawk

MD Anderson
Today’s Moderator

Duncan Van Dusen, MPH
Executive Director
CATCH Global Foundation

Today’s webinar will be recorded and available online at

www.CATCHusa.org
We are an international leader in conducting research and providing programs that promote healthy living for children, their families and communities.

Our work fosters improved health behaviors among youth, influences policy and environmental change to support healthy living, and advances professional education and community service.

Our vision: *Healthy children in a healthy world*
The MD Anderson and CATCH Partnership to Advance Youth Cancer Prevention

Ernest Hawk, MD, MPH, Vice President & Head, Division of Cancer Prevention & Population Sciences

April 27th, 2015

“The function of protecting and developing health must rank even above that of restoring it when it is impaired.” Hippocrates
To eliminate cancer in *Texas, the nation and the world*...

MD Anderson’s Mission

**Moonshot Program**

Established in 2012 to accelerate translational progress

**Research**

**Clinical Care**
- Individuals

**Education**
- Future generations

**Cancer Control**
- Community
One-Third to One-Half of Cancer Deaths are Preventable in Western Populations

Effective Cancer Prevention is Applied in Two Domains Across the Lifespan

Effective Cancer Prevention

Evidence-Based Personal Actions

Evidence-Based Population Actions

Know your family hx / risk assessment

Eliminate tobacco exposure

Reduce UV exposure

Eat a healthy diet

Follow a cancer-screening program

Increase physical activity

Use preventive meds & vaccines

Public policy

Delivery of community-based clinical services

Education – public & professional

AACR Cancer Progress Report, 2014
An Emphasis on Youth is Critical

Premise

• Cancer risk behaviors are developed early in life

• Instigators of adult cancer are known to operate during childhood
  • > 80% of adult smokers begin smoking before age 18
  • 1 blistering sunburn in childhood or adolescence more than doubles the risk of melanoma later in life


MD Anderson Cancer Center / CATCH Global Foundation Partnership

= IMPROVED EFFECTIVENESS OF BOTH
Cancer Control Platform Mission & Deliverables

**Develop and deliver comprehensive evidence-based strategies (PES)** in cancer prevention, screening, early detection and survivorship **to achieve a measurable and lasting reduction in the cancer burden**, especially among **the underserved**.

- **Policies**
  Inform, impact & implement worksite, government & public policies & related activities

- **Education – public & professional**
  Develop & deliver school-based programs, media campaigns & counter-marketing programs. Improve health professional knowledge through CME programs & telementoring activities

- **Services beyond MD Anderson’s walls**
  Improve professional practice & delivery of community-based screening & early detection, counseling, immunization, & prevention services
Evidence-Base for Cancer Control

1. Defined "cancer control" for the institution
2. Established the focus for cancer control efforts at MDACC
3. Established objective criteria and identified data needs & resources
4. Compared unhealthy behaviors & the cancer burden in Houston vs. Texas & USA (incidence, stage at diagnosis)
5. Developed eight prioritized goals
6. Identified ongoing activities (in the community and MDACC)
7. Identified evidence-based strategies for improvement
8. Conducted a gap analysis by comparing goals to ongoing activities and best practices
9. Prioritized strategies and implemented projects following broad vetting
10. Aligned research with control activities to become mutually informative
Key Parameters of an Implementation Strategy for Cancer Control

- **Control actions/intensity (PES)**
  - Passive
  - Active

- **Dominant risk factors**

- **Levels of intervention/cohort**
  - Geopolitical

- **Risk-based cohort subsets**

- **Moonshot-oriented cancer sites/organ systems**

Excessive alcohol

- Oxygen deprivation

Cancer-causing infections (e.g., HPV, H. pylori, hep C, hep B)

Obesity (excess calories &/or physical inactivity)

- Excessive UV exposure

- Tobacco

- Improper evidence-based screening

- Public education

- Professional education

- Facilitate service delivery

- Provide service

- Implement policy

- Enforce policy

- High

- Moderate

- Low

- Geopolitical

- Moonshot-oriented cancer sites/organ systems
Integration with External Community

MD Anderson partners with diverse government agencies, NGOs & corporations to facilitate planning, implementation & evaluation

**Government Agency and NGO Engagement**
- Center for Disease Control & Prevention
- Association of American Cancer Institutes
- American Association for Cancer Research
- American Cancer Society
- American Cancer Society-Cancer Action Network
- Tobacco-Free Kids
- Episcopal Health Foundation
- American Society of Preventive Oncology

**Corporate Engagement**
- Jason’s Deli
- Halliburton
- LyondellBasell
- ExxonMobil
- Shell Oil Co.
- CVS Health
- Blue Cross Blue Shield
- Linn Energy

**Boards of Visitors & Community Advisory Groups**
- Health Policy Advisory Panel
- BOV Cancer Control Advisory Group
- BOV Governmental Relations Committee

**Academic Advisors**
- John Groopman (Johns Hopkins)
- Elizabeth Platz (Johns Hopkins)
- Tim Byers (University of Colorado)
- James Marks (RWJF)
Executive Leadership & Expertise
Leveraging & Extending MD Anderson’s Control Infrastructure

Existing

- Health Policy
  - Foxhall
- Human Resources
  - Varghese
- Governmental Relations
  - Moreno
- Professional Education
  - Woods
- Community Relations & Education
  - Kim
- Div of Cancer Prev & Population Sciences
  - Hawk & Wetter

To Be Incorporated

- Dissemination & Implementation Expertise
- Youth Prevention & Education Expertise
- Community Health Advocates
- Public Health Partners
- Public Health Practitioners

Platform Operations

- Tektiridis, Salas, Bello
- Operations Staff
PRODUCTS DEVELOPED & IMPLEMENTED IN A STRUCTURED, MILESTONE-DRIVEN PROCESS

Prioritization Criteria

- Relationship to Moon Shot programs
- Resources, expertise & capacity
- Potential for population impact
- Benefit to underserved & disproportionately-impacted communities
- Targets children & adolescents to promote healthy lifestyles
The CATCH-MD Anderson Relationship

Four-year agreement will fund:
• Infrastructure & operations
• Curriculum development & dissemination
• Program & technology support

Anticipated projects include:
• Developing & disseminating new program content, including UV protection, tobacco use prevention
• Transforming CATCH curriculum into a digital format
# Health Education Modules

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<th>Pre-school</th>
<th>Elementary (K-5)</th>
<th>Middle (6-8)</th>
<th>High (9-12)</th>
<th>After-School</th>
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<td><strong>Physical Activity</strong></td>
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<td><strong>Tobacco Use Prevention</strong></td>
<td>*to be developed (Lung Moon Shot Prevention)</td>
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<td><strong>UVR Protection</strong></td>
<td>“Ray &amp; the Sunbeatable”</td>
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<td><strong>HPV Vaccination</strong></td>
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<td><em>vaccine education materials to be developed</em></td>
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*to be developed or adopted/adapted from existing evidence-based programs

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TOBACCO USE CONTENT
ASPIRE: A Smoking Prevention Interactive Experience

- Started in 2000 as research project for smoking prevention & cessation aimed at high school students
- Internet-based with various media elements, including flash animation, quizzes, games, videos
- Can be culturally tailored
- School-Based Dissemination:
  - 12,745 students have used ASPIRE
  - 4,474 students completed the program
  - 24 states & 1 international location enrolled
  - Add’l states & international locations have expressed interest
- Accomplishments:
  - Website has averaged up to 800 visitors / month, more than 40,000 visits from at least 66 countries
  - Spanish version launched in 2011

Prokhorov et al, Nicotine Tob Res 2008
Prokhorov AV et al, Subst Use Misuse 2010
Funded by NCI

A Smoking Prevention Interactive Experience (ASPIRE)

Smoking Initiation Rates Among Nonsmoking 10th Grade Students at 18 mo. Follow-up

P < 0.05
Student Feedback on ASPIRE

Learned New Facts
- Yes: 70%
- No: 15%
- Maybe: 10%
- Don't Know: 5%

Influenced Not To Use Tobacco
- Yes: 85%
- No: 5%
- Maybe: 5%
- Don't Know: 5%

Better Understand Tobacco Effects
- Yes: 80%
- No: 5%
- Maybe: 5%
- Don't Know: 5%

Would Recommend ASPIRE
- Yes: 90%
- No: 5%
- Maybe: 5%
- Don't Know: 5%

Slide courtesy of A. Prokhorov
SUN PROTECTION CONTENT
Purpose: To teach children about sun protection and promote these behaviors to reduce skin cancer risk.

Theme: Ray & the Sunbeatableables are superheros, with each having a unique superpower to protect against the sun - clothing, hats, sunglasses, sunscreen, shade, and knowing when it’s safe to be outside.
Sample Curriculum Activity: “Are Our Shadows Long?”

Children learn about the Shadow Rule: During early morning and late afternoon, shadows are longer and it is safer to be outside. During midday (10:00 AM to 4:00 PM), the sun is directly overhead, UV rays are most intense, and shadows are shorter (or there is no shadow).
Sun Protection Intervention Works

The *Sunbeatables™* program continues MD Anderson’s dedication to preschool sun protection.

Results of MD Anderson’s Sun Protection is Fun! (S.P.F.) preschool program:

- **Teachers:**
  - Teachers became more knowledgeable about sun protection & more confident in ability to protect children
  - Significant behavioral effects on teacher’s use of sunscreen, protective clothing & shade to protect children

- **Parents:**
  - Parents became more knowledgeable about sun protection
  - Positively impacted their sun protection behaviors for children

_Gritz, Tripp, et al., Health Educ Behav, 2007_
Future Content Development

- HPV vaccination
- Hierarchy of scientific evidence (advanced grade levels)
DISSEMINATION
Translation...

- Into digital format
- Across cultures & languages
One goal: end cancer.
International Reach
Global Academic Programs (GAP)

GAP supports our mission via the Sister Institution Network:

• 29 Sister Institutions in 22 countries incl. 3 consortia
  – list at www.mdanderson.org/gap

• the largest global network of cancer centers working collaboratively to accelerate the mission of Making Cancer History

– Network is a platform to support work in patient care, research, prevention, control, and education
Our Aspiration

Evidence-based Cancer Prevention & Control = “Plan A”

...In Every Regard
• HPV vaccination
• Tobacco control
• Skin cancer screening

...Everywhere
• Texas
• U.S.
• World

...By All Means
• Policy
• Education
• Service
THANKS to CATCH and existing partners for permitting us the honor of working with you to advance our shared mission of educating youth in healthy behaviors!

Special thanks to:
Steven Kelder, PhD, MPH
Deanna Hoelscher, PhD, RD, LD, CNS
Duncan Van Dusen, MPH
“Effective cancer prevention will play a powerful role in the future health of our country...It’s important that we deploy MD Anderson’s programs for optimum impact. With CATCH, we’re fortunate to combine our expertise with a successful, longstanding program providing a practical, research-based approach to child health that’s already national in scope.”

*Ronald DePinho, MD*

*President, MD Anderson Cancer Center*
Acknowledgements

Cancer Prevention & Control Platform
Leadership Team
Mark Moreno (co-leader)
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Steven Kelder, PhD, MPH
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Duncan Van Dusen, MPH
Thank You!

Duncan Van Dusen, MPH
Executive Director
CATCH Global Foundation
DVD@catchglobalfoundation.org

Today’s webinar was recorded and will be available online at www.CATCHusa.org

Peter Cribb, MEd
National CATCH Director
CATCH Global Foundation
pcribb@catchglobalfoundation.org

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