
GENENTECH'S INNOVATIVE PILOTS TO ALTER CERVICAL CANCER'S TRAJECTORY

Genentech Overview

Bringing new ideas and partners together for novel solutions in an effort to eradicate a preventable disease:

Altering cervical cancer's trajectory.



Science

Over 30 years of developing ground-breaking medicines that treat patients with life-threatening conditions.

Patients

Dedicated to improving patient outcomes.

People

A culture that promotes breakthroughs in medicine and improving the healthcare system.

Cervical cancer is largely preventable with regular screening



95% of cervical cancer could be prevented or effectively cured with regular screening

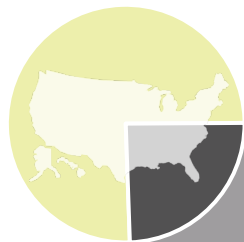
American Cancer Society



30% of U.S. women do not receive regular screenings according to the CDC

CENTERS FOR DISEASE CONTROL AND PREVENTION

HOW MANY WOMEN ARE AFFECTED?



12,360 diagnosed annually in the United States

4,020 result in death

5 year survival rates:

Early-stage diagnosis



91%

Advanced-stage diagnosis

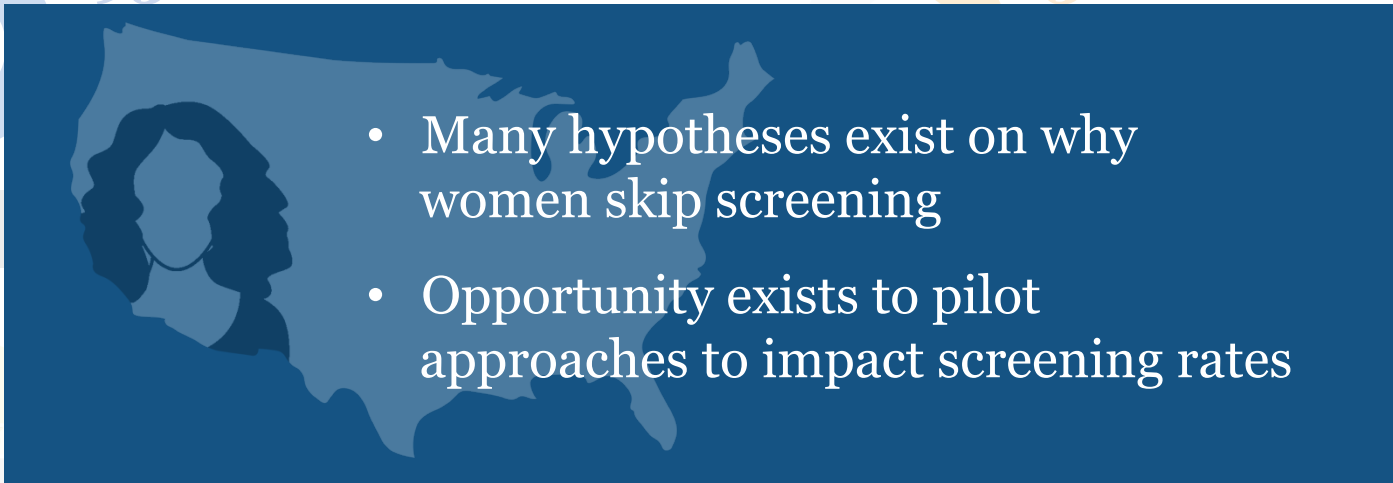


16%

Cervical cancer is largely preventable with regular screening

95% of cervical cancer could

30% of U.S. women do not



- Many hypotheses exist on why women skip screening
- Opportunity exists to pilot approaches to impact screening rates

4,020
result in death

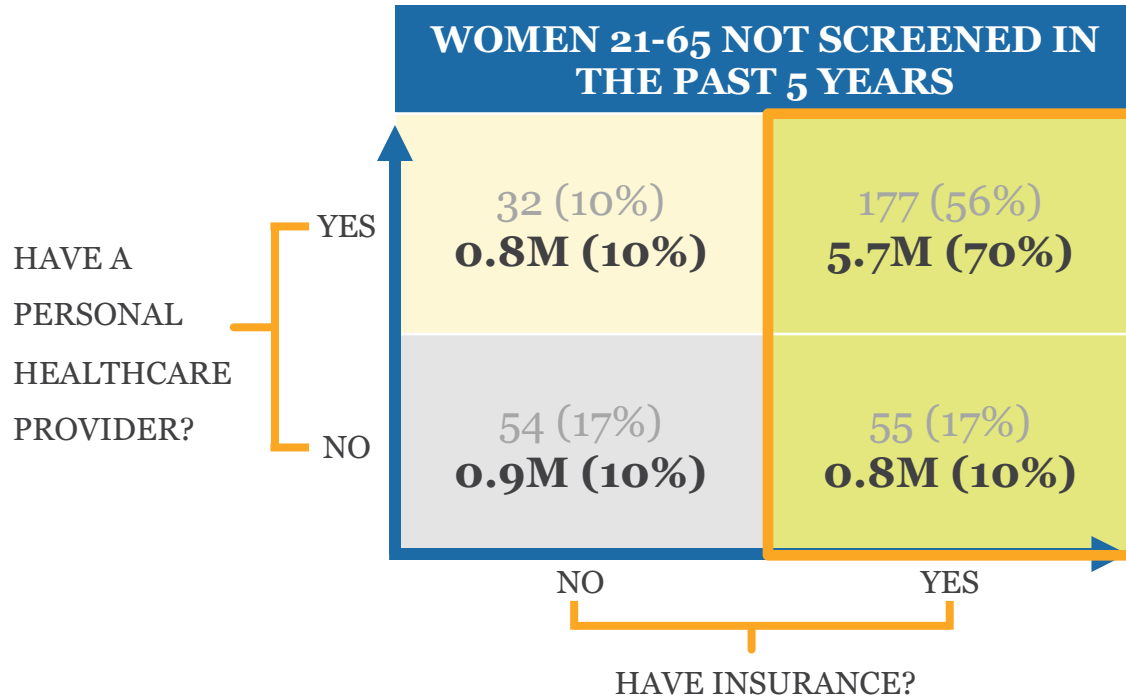
Advanced-
stage diagnosis



91%

16%

Genentech's research uncovered two at-risk populations



We engaged the **Under-engaged** population in order to **reach the most women** and the **Under-privileged** population due to the **low preventative health performance.**

Genentech committed to altering cervical cancer's trajectory

Genentech
partnered
with SGO*
and CDC**
to prioritize
intervention
pilots



Be a Catalyst for Innovation

Foster Health Technology Innovation to drive awareness and encourage novel solutions



Patient Screening Education

Provide educational materials to spur conversations between patients and providers



Identify At-Risk Patients

Leverage Big Data to identify risk factors for missing screening

3 efforts were launched to alter cervical cancer's trajectory



Quest: Innovation Challenge

Finding New Approaches to Prevent Cervical Cancer

Get the right screening tests at the right time to prevent cervical cancer

Screening finds abnormal cells that can be treated early
Pap test: Checks for cervical cell changes that could become cancer
HPV test: Looks for the virus that causes these cell changes

Most cervical cancers are caused by HPV
• It's a virus that's passed from person to person during sex.
• Most people get it and it goes away on its own.
• HPV can cause cancer if it doesn't go away.

When should you be screened?
• At 25—have your first Pap test. If it's normal, get your next Pap test in 3 years.
• At 30—if your test results are normal, get your next Pap test in 3 years.
OR
Get a Pap test and an HPV test every 5 years.

TALK TO YOUR DOCTOR ABOUT WHEN YOU SHOULD BE SCREENED FOR CERVICAL CANCER.

Supported by **Genentech**
A Member of the Roche Group

For more information about cervical cancer:
www.cdc.gov/cancer/cervical/

Cervical Cancer Screening Education

Awareness Campaign in Primary Care Physician Offices



Data Competition

Identifying Women At Risk for skipping Cervical Cancer Screening

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The Quest Award – Open Innovation Competition



THE QUEST AWARD
SOLUTIONS TO END CERVICAL CANCER

A global competition to identify innovative solutions in cervical cancer prevention, screening and education

49 novel solutions submitted to improve cervical cancer outcomes

Contest Judges included physicians, venture capitalists, patient advocates, Genentech leaders

Competition Winner awarded \$50,000 grand prize and 1 year mentoring

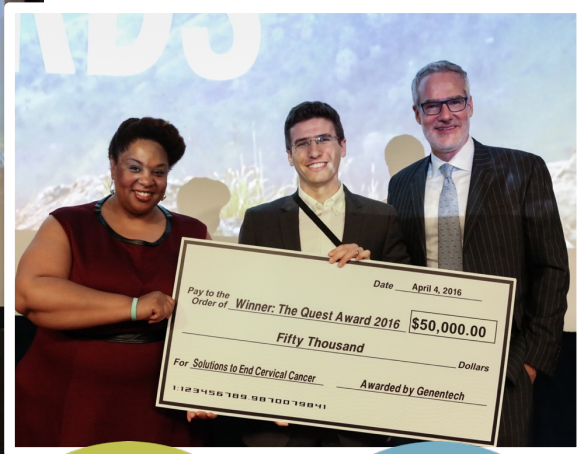
Learn more at
www.thequestaward.com

“And the Quest Award winner is...”

Patient voice represented by Master of Ceremonies and Cervical Cancer survivor **Tamika Felder**.



Now FDA-Approved!



“Thanks. Made an appointment.”

“This message can save the life of a woman.”



2,700+ likes
390+ shares
50+ comments



4,000+ likes
770+ retweets/shares

Quest Award Winner

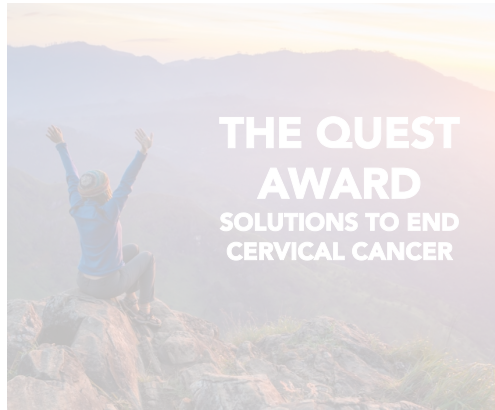


49 Submissions
20 Judges
5 Finalists

Finalists



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Patient Engagement and Education Campaign

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at the **right time**
to prevent cervical cancer



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Center for Disease Control and Genentech partnered to develop a simple screening education campaign

1,660 Primary Care Physician offices with 3,200 MDs

Patient Engagement and Education Campaign

PATIENT IMPACT



25% of Patients¹

Reported that reading the material prompted them to ask their healthcare provider about screening

Validated via HCPCS screening code directional lift

DIALOGUE INCREASED



**76% of Health
Care Professionals²**

Reported a patient initiated a discussion based on Education materials

¹Results of patient survey, n=139

²Results of HCP survey, n=114

Pilot impact: Screening education hypotheses confirmed

Simple language can connect the dots between screening and cancer prevention.

Education can effectively trigger a change in patient behavior.



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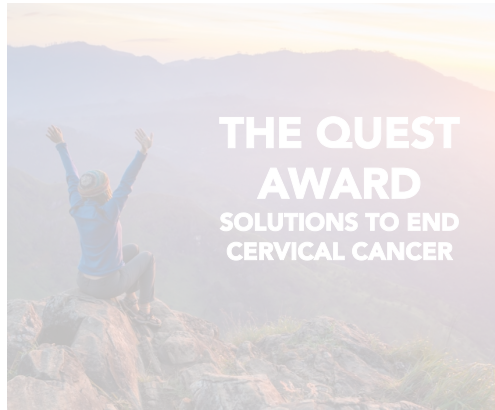
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Big Data Competition: Identify risk factors

Data Science competition to predict risk of non-screening behavior

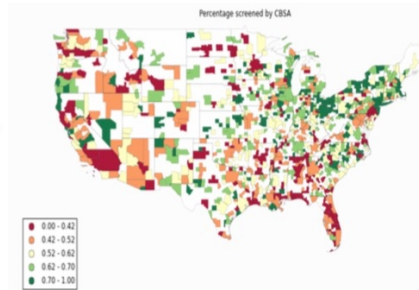
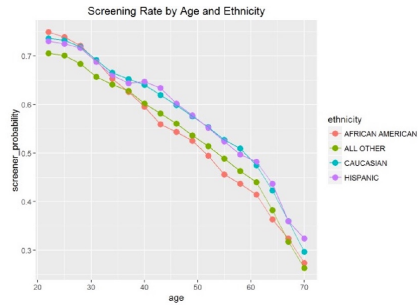
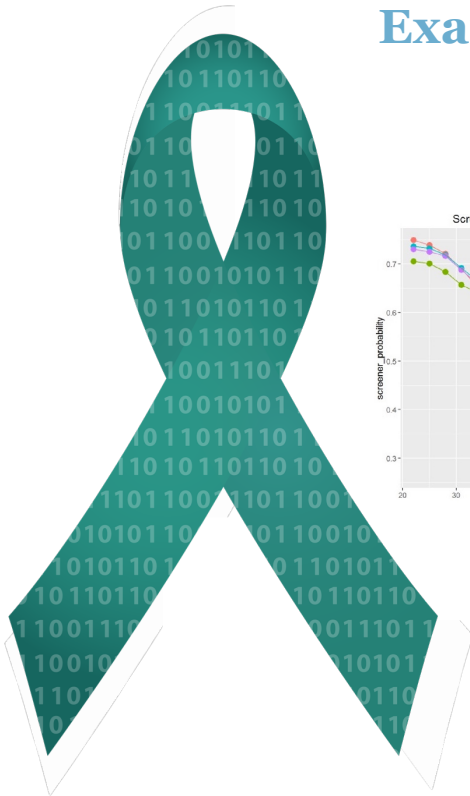
1,000 top international data scientists submitted predictive models

Anonymized Data for over 3M women analyzed

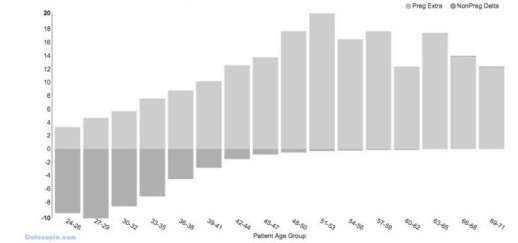
Predictive Models to best identify women at risk

Big Data Competition: Identify risk factors

Examples of Predictive Models:



This chart shows the difference in screening % from the overall screening % for pregnant patients (positive difference) and non-pregnant (negative difference).



Pilot impact: Data analysis provided new insights to predict non-screening factors

Key predictive factors for non-screening:

- No prior pregnancy or other OB/GYN procedures
- Women 40 and older
- No contact with OB/GYN, NP, Nurse Midwife
- Live in US Southeast
- Acute disease
- Special needs
- Caucasian and African American
(less likely to be screened than Hispanics)

Novel insights can help identify women most at-risk for missing screenings

Words that are associated with lower screening rates



3 efforts with one goal: alter cervical cancer's trajectory

learn more at www.gene.com/fightingcervicalcancer



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Challenge

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Cervical Cancer Screening
Education



Data
Competition

THANK YOU

FOR MORE INFORMATION CONTACT:
GENENTECH COMMERCIAL PARTNERING
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