



EFIHL

Executive Fellowship in
Innovative Health Leadership

ASU College of Nursing
and Health Innovation
Arizona State University

AONE
The Voice of Nursing Leadership™

 American Association for
**PHYSICIAN
LEADERSHIP**
Inspiring Change. **Together.**



Virginia D Chavis, PhD
Self-collection Cervical Cell Device

About the Fellow



3 things I'd like you to know about me

1. Excel at obtaining in-depth user insights
2. 7 years of Healthcare research and innovation experience
3. 18 years of information technology development and analysis

Being an Healthcare Innovation Leader

As a healthcare leader, I am responsible for innovation and strategic thinking that lead to solutions, which offer more convenient access to services and a more engaging patient experience.

My Mentor

This fellowship was supported by Kathy Malloch PhD, MBA, RN, FAAN

- Under the superior leadership of my mentor, I was able to create a new medical device prototype in 7 months.
- She encouraged me to collaborate with a variety of faculty and industry leaders.
- She provided exceptional guidance to help me with my interpersonal and professional development.

Innovation

Is a concept, such as a product, service, technology, process, or method, that leads to a useful solution that changes the user's behavior and/or experience



My “ah hah” Moment: What I’ve Learned

Advancing healthcare innovation requires collaboration with internal and external experts with certain capabilities including retail and customer insight experience, analytics, risk management, regulatory, and insurance expertise.

Large companies’ strong culture often stifles new innovation initiatives. Small organizations with a sense of urgency (innovate or die) appear to have the right agile environment to boost success.

Observations and listening lead me to my greatest “ah hah”.

I don’t have to be a clinician to lead healthcare innovation efforts!

- As assessed at Cincinnati Children’s Hospital Medical Center, September 2016 Immersion

Project Description

The option to self-collect vaginal samples at-home has the potential to encourage women to get timely pap screening and treatment for bacteria and HPV infections.



Raise awareness to alternative methods of performing pap smears



Determine whether an at-home ectocervical device has the equivalent cell recovery or diagnostic rate as a device used in clinic by a clinician



Create a network of clinicians, accredited labs, and preservation vial manufacturers to support the new device

Proposed Impact of Project

Just as on-line shopping changed the way people shop at brick-and-mortar stores, high-deductible health plans (HDHP) alter the way people seek care. HDHP increases the out-of-pocket cost people pay for medical services.

My project enables innovation that can lead to affordable convenient health screening.

The trend for alternative care methods will only accelerate. A new device provides the means to reduce the number of missed routine screenings, identifies more precancer, provides adequate oversight for cytology testing, and offers timely clinical result consultations all a reduced cost.

Anticipated outcomes:

- New easy to use cervical self-collection device
- Self-collected cervical cytology specimens will meet or exceed the 5,000 cell threshold for well-visualized/well-preserved squamous cells

Project Innovation Steps

Interprofessionalism & External Experiences

- Single whole-organization approach vs Collaborative network approach
- My key innovation steps:
 - Examined the market and competitive solutions
 - Created a vision that helped build a network of support
 - Created an evidence-based strategic transformational model
 - Obtained regulatory guidance from ASU's clinical professors and FDA
 - Formed a team of industrial designers and engineers who created prototype
 - Worked with laboratory directors and GYN clinicians to develop clinical trial protocol

Project Accomplishments

Accomplishments

- 1 Problem assessment & existing solution completed
Professional drawings developed
Prototypes developed
- 2 U.S. Patent Filed and accepted
- 3 ASU IRB approval for phase 1 –
Social Behavioral Study
- 4 Agreement with accredit lab for device
validation

Next Steps

- 1 With prototype conduct Social Behavioral Study
- Focus Group and Clinician Interviews
- 2 Produce medical-grade prototype
- 3 Obtain ASU IRB approval for phase
2 – Biomedical Study
- 4 Conduct Biomedical Study and publish
findings

What will I do Differently Lessons Learned

Agility is vital for rapid development

- Keep momentum
- Minimize bottlenecks
- Pursue alternative solutions (where appropriate) simultaneously. This is also true when pursuing a partnership or contractual agreement.

Fellowship Experience Translated to Work Environment

- Encourage and reward innovative ideas
- Allow employees to have substantial ownership of intellectual property (similar to residual pay model)
- Create infrastructure to support healthcare innovation including diverse team of internal experts as well as external advisory group
- Don't go it alone; seek partnerships and healthcare funding grants

Recommendations for Future Fellowships

- To faculty:
 - Have more webinars including live interactive webinars
 - Encourage Fellows to form a coalition
 - Complete at least one small group project at a sponsoring or academic medical center
 - Leverage expertise of other fellows in order to solve a real-life healthcare problem
- To future Fellows:
 - Join an amazing experience and become a fellowship cohort
 - Learn to lead healthcare innovation that can tremendously impact patient outcomes



Thanks & Attribution

- Self-collected cervical device may help provide timely cervical cancer screening at a reduced cost.
 - My goal is to reach women who otherwise would not go to a office\clinic.
- Thanks are due to Arizona State University Industrial Design School for developing the prototype:

Lauren Emmerson
ASU Industrial Design Graduate
<http://laurenemmerson.com/>

Anastasia Miller
Industrial Design Graduate
<http://anastasiamiller.businesscatalyst.com/>

Yannez Brown
ASU Industrial Design Graduate
<http://yannez.com/>



