November 2015
Volume 1 | Issue 2

Delaware Journal of Public Health

a publication of the Delaware Academy of Medicine / Delaware Public Health Association

LOOSENING THE GRIP OF TOBACCO IN THE FIRST STATE

DELAWARE ACADEMY of MEDICINE

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For science. For action. For health.

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In this issue

COVER

Currently, there are several lung cancer initiatives underway in Delaware. Artwork provided by ab+c Marketing.

The Delaware Journal of Public Health (DJPH), first published in 2015, is the official journal of the Delaware Academy of Medicine / Delaware Public Health Association (Academy/DPHA).

Submissions: Contributions of original unpublished research, social science analysis, scholarly essays, critical commentaries, departments, and letters to the editor are welcome. Questions? Write ehealy@delamed.org or call Liz Healy at **302-733-3989**.

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Delaware Journal of Public Health

Tim Gibbs
Executive Director
tgibbs@delamed.org

Omar Khan
Editor
okhan@christianacare.org

Liz Healy
Editor
ehealy@delamed.org

Christian Derr
Art Director
info@christianrderr.com

FROM THE EXECUTIVE DIRECTOR

In the late 1979s Prochaska and DiClemente developed the Transtheoretical Model, also called the Stages of Change model. Their model evolved through studies examining the experiences of smokers who quit on their own versus those who required additional treatment to quit. Their finding? People quit smoking if they were *ready to do so.* Their Stages of Change model operates on the understanding that people do not change behaviors quickly and decisively. Change in behavior, especially habitual behavior, occurs continuously through a cyclical process.

Prochaska and DiClemente suggested six stages of change: precontemplation, contemplation, preparation, action, maintenance, and termination. For each stage of change, different intervention strategies are most effective at moving the person to the next stage of change and subsequently through the model to maintenance, the ideal stage of behavior.

So it was that in 1999 I had been thinking about the benefits of quitting my own smoking habit adopted in 1974. I wasn't as young and resilient as I used to be, and I was listening to the mounting evidence that smoking was bad for me, and for those around me. But smoking is a tough habit to quit, and it wasn't until former Governor Ruth Ann Minner signed the original Clean Indoor Air act in 2002 that I quit smoking. Signing of that bill was my cue to action to quit. I'd thought about it, I'd planned, and I acted. And it was tough in those first several months. EVERYTHING reminded me of smoking, from drinking coffee to walking outside, going to a bar to drifting off to sleep or waking up in the morning. And I stuck with it, and have been "first-hand" smoke free since then. Now, thirteen years later, I recoil at the smell of smoke - especially that of one of my neighbors who will periodically sneak outside late at night when no one else will know.

Ruth Ann Minner

We were making great strides in Delaware toward reducing combustible tobacco usage - and then along came e-cigarettes and vaping providing a new delivery system for an old and highly addictive substance - nicotine. This time it smelled - for lack of a better word - good...fruity, herbal, dessert-like, candy-like....and a whole new generation of nicotine addicts was born.

Jack Markell

Early this year Governor Jack Markell signed amendments to the Delaware Clean Indoor Air Act into law which add vaping and e-cigarette use into the broader statute prohibiting combustible tobacco products. In Delaware, individual municipalities can exercise even stricter restrictions - such as Bethany and Rehoboth Beaches' prohibition of smoking on the beach.

Nicotine use, in any form, has downstream negative health impacts. Some of those impacts are based on the system of delivery: combustible smoking impacts the lungs, chewing impacts oral and periodontal health. However, all delivery systems raise blood pressure and heart rate, constrict blood vessels, and stimulate the central nervous system. A single drop of nicotine will kill a human being. Nicotine is, in short, an addictive poison to which the precautionary principle must be applied.

Many say "better to switch to e-cigarettes over regular ones" to which we public health and medical professionals say - "better to quit entirely, and the sooner the better for yourself, and for those around you."

Timothy E. Gibbs, MPH
Executive Director
Delaware Academy of Medicine and the
Delaware Public Health Association

Timothy E. Gibbs, MPH, NPMc
Executive Director
Delaware Academy of Medicine
Delaware Public Health Association

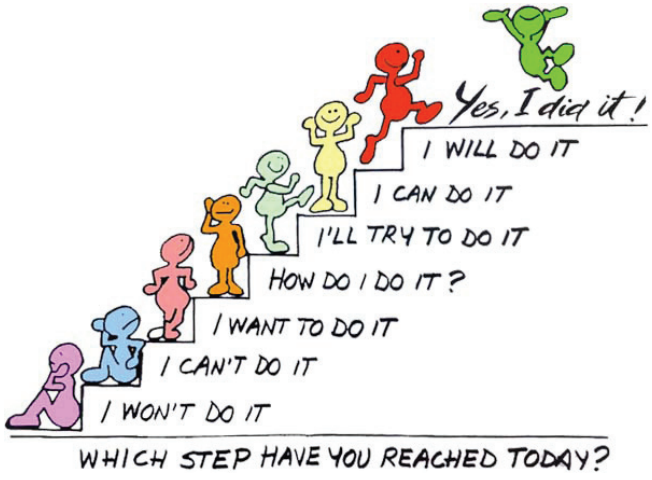

image from the Institute for Wellness

About this Issue

Breathing is essential to life. That's why it's so important to support healthy lungs and clean air, because from our first breath to our last, every breath counts. It's always better to prevent a disease than to treat it. Proven public health strategies, such as washing your hands and staying up-to-date on vaccinations, can protect both you and those around you. This is an important message to share, especially for the health of those living with a lung disease.

Influenza, or flu, is a serious respiratory illness that is easily spread from person to person. We are well into the flu season, and while we are all at risk for getting and spreading the flu, if you have asthma or other lung diseases, you are at higher risk of developing complications from the flu.

More than 33 million Americans live with a chronic lung disease, like asthma and chronic obstructive pulmonary disease (COPD), which includes emphysema and chronic bronchitis. Education and support programs for those living with a lung disease, their caregivers and those that love them, is critical for improving their health and reducing the burden of living with a lung disease.

Asthma makes breathing difficult for millions of Americans, both young and old. While there is no cure, asthma can be managed and treated, and for the 22 million Americans currently living with asthma, including over 6 million children, can live a happy and healthy life.

COPD is a chronic lung disease that makes it hard to breathe. The disease is increasingly common, affecting millions of Americans, and is the third leading cause of death in the U.S. In fact, in 2014, 16.1 million U.S. adults were estimated to have COPD but close to 24 million adults have evidence of impaired lung function, indicating an under diagnosis of COPD. The good news is COPD is often preventable and treatable.

Investing in Lung Health

The American Lung Association's **Nationwide Research Program** has been a cornerstone of our organization for more than a century. Funding medical research is at the core of the American Lung Association's mission to save lives by improving lung health and preventing lung disease. Our research builds healthier futures by funding the most innovative and inquisitive scientific minds, offering support to allow them to grow and advance in the field of lung health research. Through the American Lung Association's **Awards and Grants Program**, we are able to foster laboratory, patient-centered and social behavior research to prevent, treat and hopefully find a cure for all lung diseases.

This year, the Lung Association is investing $6.49 million in lung health research, including more than $3.8 million for lung disease research plus funding for the Airways Clinical Research Centers (ACRC). The Lung Association has also expanded the ACRC network to include not only asthma, but also research on COPD. The network will continue to directly impact patient care for asthma in diverse populations, but will now be able to conduct large, simple trials examining COPD as well.

Tobacco

Though the harmful consequences of tobacco use are well known, it remains the leading cause of preventable death and disease in the country. Cigarette smoke contains more than 7,000 chemicals and can harm nearly every organ in your body. Every year in the U.S., close to half a million people die from tobacco-caused disease and thousands more experience a wide range of adverse health effects, including lung cancer and COPD.

Almost 87 percent of adult smokers began smoking before they turned 18. Stronger laws are needed to keep kids from smoking and break the cycle of addiction, illness and death.

Secondhand smoke is also dangerous, and even short-term exposure can trigger a heart attack. Every year, more than 41,000 people die from exposure to secondhand smoke.

The American Lung Association works to strengthen laws and policies that protect everyone from secondhand smoke and the deadly effects of tobacco use. While I am happy to report that 28 states have passed comprehensive laws prohibiting smoking in almost all public places and workplaces, we need to ensure that everyone in all 50 states can enjoy clean, smokefree air where they live, work and play.

From chronic and infectious lung diseases to smokefree public spaces, supporting steps to protect lung health is critical to public health and saving lives. When it comes to advancing public health in Delaware and beyond, lung health is essential. Because if you can't breathe, nothing else matters.

Dr. Albert A. Rizzo, MD, FACP, FCCP,
Senior Medical Advisor, American Lung Association
Section Chief, Pulmonary/ Critical Care Medicine
Christiana Care Health System
Board Member, Academy of Medicine

Deborah P. Brown
President and CEO
American Lung Association of the Mid-Atlantic
Academy/DHPA Member

Dr. Albert A. Rizzo, MD, FACP, FCCP,

Deborah P. Brown

UPCOMING EVENTS

November 14, 2015

2nd Annual Delaware Military Medicine Symposium – www.delamed.org/dmms

January 14, 2016

Frank M. and Robert R. Hoopes Medical/Dental Lecture

February 13, 2016

2016 ACP Delaware Chapter Annual Meeting – www.delamed.org/pdfs/ACP2016.pdf

March 4, 2016

27th Annual Update in Cardiology

March 18, 2016

DNA Spring Conference 2016

April 8, 2016

DNA/MNA Joint Conference 2016

April 4-10, 2016

National Public Health Week

April 8, 2016

Neurovascular Symposium

April 22, 2016

86th Annual Meeting of the Delaware Academy of Medicine/ Delaware Public Health Association

For general inquiries about the Delaware Journal of Public Health or possible contributions for upcoming issues, please contact Liz Healy

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Similar to the APHA, sections serve as the primary professional units of the Association and conduct activities that promote the mission and fulfill the goals of the Academy/DPHA. Sections create a variety of opportunities for member involvement, thus making the the Academy/ DPHA experience richer for individuals who have the opportunity to attend and choose to interact with their primary Sections.

Delaware Academy of Medicine / DPHA

4765 Ogletown-Stanton Road
Suite L10
Newark, DE 19713

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The Delaware Academy of Medicine is a private, nonprofit organization founded in 1930. Our mission is to enhance the well being of our community through medical education and the promotion ofpublic health. Our educational initiatives span the spectrum from consumer health education tocontinuing medical education conferences and symposia.

The Delaware Public Health Association was officially reborn at the 141st Annual Meeting of the American Public Health Association (AHPA) held in Boston, MA in November, 2013. At this meeting, affiliation of the DPHA was transferred to the Delaware Academy of Medicine officially on November 5, 2013 by action of the APHA Governing Council. The Delaware Academy of Medicine, who's mission statement is "to promote the well-being of our community through education and the promotion of public health," is honored to take on this responsibility in the First State.

An Interview with Dr. Albert Rizzo | *by Liz Healy*

Dr. Rizzo is the chief of Christiana Care's Pulmonary and Critical Care Medicine. He served as medical director for Pulmonary Disease Management. This role included developing guidelines for treating and discharging patients with lung-related illnesses such as asthma, pneumonia, emphysema and bronchitis. In addition, he is on the Lung Cancer Health Improvement Team and the Pharmacy and Therapeutics Committee.

Dr. Rizzo earned his medical degree from Jefferson Medical College of Thomas Jefferson University in Philadelphia. He was an intern and resident in internal medicine at the university's hospitals and completed his fellowship in pulmonary medicine at Georgetown University Hospital in Washington, D.C. He received specialized training in sleep medicine through a preceptorship sponsored by the Robert Wood Johnson medical system at Kennedy Hospital.

Dr. Rizzo practices with Pulmonary Associates, which has offices near Christiana Hospital and in Wilmington. He is board-certified in internal medicine, pulmonary disease and critical-care medicine and sleep-medicine disorders. He is a fellow in the American College of Physicians (FACP) and the American College of Chest Physicians (FACCP).

He currently serves as a clinical professor of medicine at Jefferson Medical College. He is also medical director and on the Medical Advisory Board for the School of Respiratory Care at Delaware Technical & Community College. Dr. Rizzo is an active researcher and lecturer. He has served as principal investigator for numerous drug studies related to treating respiratory illnesses. His lectures have covered topics ranging from the diagnosis and treatment of lung-related illnesses to the effects of sleep disorders on heart health.

He is deeply involved in the American Lung Association. He has been on the local organization's board of directors since 1987 and has served as chairman of that board on two occasions. He has been active at a national level for the association and is currently the speaker of the American Lung Association Nationwide Assembly. The national organization has recognized him four times with honors that included the John Janvier Black, M.D., Award for Community Service and the Volunteer Excellence Award in Program Innovation.

Dr. Albert A. Rizzo, MD, FACP, FCCP, Board Member, Academy of Medicine

Dr. Rizzo's other professional and community activities include serving as chairman of the Pharmacy and Therapeutic Committee, which creates a preferred drug list for Delaware's Medicaid program. He was appointed to the position by the secretary for Delaware Health and Social Services. He is also on the state Drug Utilization Review Board.

LH: How did you first gain an interest in medicine and then specifically, in pulmonology?

AR: Well, the interest in medicine was there for a long time, I just can't explain it. The easier question for me is pulmonary…I think a lot of physicians have some preconceived notion of what they want to do, but mine was based really on the physicians I met along the way, when you do different rotations and spend time at different hospitals. When I was an intern and did my respiratory intensive care unit rotation at Jefferson…the teachers that I had there made it very interesting, they made the physiology interesting, the treatment modalities we had to treat these patients interesting, and it just looked like something that made sense and I decided that was something I wanted to do.

LH: What do you find to be one of the biggest challenges in the field, and in your position?

AR: Well, I don't know if challenging in the right word, but certainly we know that a lot of pulmonary diseases could be prevented if we could get people off of cigarettes, and I do a lot of teaching about that; it's rewarding to get people off [of cigarettes] when I can, but the challenge is many people have been smoking for many years, and it's a chronic disease, so the most I'm going to be able to do for some of these patients is to help them have a better quality of life, but I can't necessarily cure them. So COPD, lung cancer, the challenges of curing those conditions is handling them way up front, getting them off the cigarettes, finding the lung cancer before it's causing symptoms, a lot of it is screening, to some degree.

LH: Is there one condition you have found most difficult to treat, or a condition that requires the most steps involved in treatment?

AR: Well many pulmonologists, myself included, when you're doing pulmonology, you're doing intensive care as well. Many patients end up in intensive care because of respiratory diseases, severe pneumonia, a flare up in COPD or asthma, post operation complications, those patients can become very, very ill, and can spend days, if not weeks in the intensive care units. So you're balancing not only the pulmonary aspect of the disease, with all the other complications of fluid and electrolyte balance and infections, but also dealing with a very trying time for a patient and their family. So I think as far of the intensity and complexity, it's those critically ill patients that we deal with can be the most challenging.

LH: Are most pulmonary conditions genetic, or are they typically developed over time?

AR: I would say most of them are acquired in say, now we could say the tendency to acquire certain conditions is something somewhat related to your genetics-we know we can have people who smoke everyday of their life and live to 95 and have no trouble, or we can have people who smoke a pack a day for ten or fifteen years that are already having trouble. So, I think a lot of it is acquired, but there are genetic predispositions as well. Environmental exposure, tobacco exposure, infections, all of those can lead to or trigger pulmonary problems that can be chronic.

LH: What are some of the most effective prevention tactics you share with your patients?

AR: First, not smoking, as we've already mentioned. And if there is something, like asthma, where the patient has seasonal symptoms, the best thing is to identify potential triggers, or seasons when they have triggers, also being evaluated for specific allergies. The other thing is in patients who are otherwise feeling good, but do smoke. If they fall into the category of getting screened for cancer, I certainly encourage that, as a preventative or wellness approach…there are things they can do if they cant get off cigarettes, for example, they can at least get themselves screened for lung cancer that can be found earlier.

LH: Is there a certain population that you find more at risk? Smoking habits may play a factor in this as well.

AR: I would say my personal experiences mirrors what is often noted in the statistics- we know that the socioeconomics of an individual can play a big role in how much they observe wellness advice; smoking is more prevalent in lower socioeconomic groups; I think my experience probably mirrors that, we have harder nuts to crack in terms of different parts of the population.

LH: How have you seen air quality affecting some of your patients? Have you seen people from certain pockets of the state come in more than others as a result of problems related to air quality?

AR: I think in general the air quality issue is certainly improving, but we have a ways to go. If we look back at socioeconomics, some people have to live right by I-95 in downtown Wilmington, and the fuels from cars and trucks can certainly affect them much more if they have asthma or any other conditions. Each environment has its potential reasons why some people may have more symptoms than others. I can educate people on improving air quality in their home, most people can't just get up and move their home, however.

LH: Have you seen any trends throughout the state or throughout the US with pulmonary conditions? What do you think the future of these conditions holds in your opinion?

AR: Well I don't think they're going to go away right way, even if everyone stopped smoking today, these issues would still exist. And although the environment is improving, we still have challenges of trying to improve the air further, and the additional challenges of what climate change does to seasonal variation, longer allergy seasons, more wildfires, which affect air pollution, things like that, so I think the future for someone who wants to go into pulmonary will be good, I think they will be busy, but I don't want to minimize the strides we've made with getting smoking rates down and improving air quality.

LH: How have treatments for some of these conditions changed over the course of the 20th century? Are there any conditions that are now treatable that were previously untreatable?

AR: I think there's been a big change with asthma treatment and medications since the end of the 20th century, the development of inhaled steroids to help treat asthma I think is a big progress with regard to maintaining better control for patients with asthma and in trying to reduce the number of people who have died from asthma attacks. Inhaled medications especially inhaled steroids, long acting bronchial dilators; those have changed our ability to help control symptoms, especially in asthma and some in COPD as well. The other technologies have mainly to do with some of the things that are in the hospital, as far as the technologies in ventilators to help with respiratory failure, non-invasive devices to help monitor the critically ill, so as far as critical care space there have been a lot of technological advancements. With regards to other medications, we don't want to ignore the fact we now have smoking cessation drugs that were not available prior to the 80's 90's, so all of the FDA approved nicotine replacements and smoking cessation medications have helped, not doing as well as we would like, but they have helped.

LH: Similarly, what is the best thing you have seen happen in the field since you have started working in it?

AR: The development of some of the better non-invasive diagnostic techniques, a bronchoscopy is one of the procedures a pulmonary specialist does, this allows you to biopsy things father out in the lung, and by way of ultrasound, and navigate through the lungs by way of a cat scan, they've made it easier and less invasive for patients to get the diagnosis, so to be able to cut down on the amount of surgery needed prior to making that diagnosis has been a significant advancement.

LH: Your outpatient practice covers pulmonary and sleep disorders primarily, how do those two areas overlap for someone who is not familiar with their connection?

AR: Sleep apnea, is usually in the range of a pulmonary specialists because it is a disorder of breathing during the night where the oxygen level drops as a result of airway narrowing, it is more common in individuals who are overweight or obese, or those who have stiff necks, so that doesn't mean they necessarily have a lung problem, but it's a condition that often coexists with lung conditions like COPD or asthma, and obesity sometimes coexists with that, and also the same reason that cardiac disease sometimes overlaps with lung disease and obesity and sleep apnea is there too. sleep apnea cuts across a lot of specialists, and certainly pulmonary is in there as well, but not everyone with sleep apnea has COPD or asthma, but many of them can, and that may be how I end up seeing them.

LH: What would you tell someone who is thinking about getting into the field of pulmonary? Any words of advice?

AR: I think usually the person who is asking that is usually at the level of medical school or later, but I think I would tell them the same thing that got me excited about it- understand the physiology of how the lungs work, ventilation, blood flow, and the fact that it's a field that is something stable and the patients you see mature in the sense of controlling their asthma or to the other extreme of patients who have chronic life threatening end stage disease who often need to be in the intensive car units. It's a wide range of patients that you can deal with… but it's a broad range of patient experiences you gain and a diverse range of diseases, some mild, some chronic and life threatening.

LH: How about someone looking for volunteer opportunities, or maybe do research in this area, or get involved in this area in another way?

AR: Again, I think it's a disease which touches most people and their family so it's a field of diseases that is prevalent and common- asthma, emphysema, COPD, lung cancer- so if you're looking for something that is very broad and able to be recognizable by a variety of individuals it may be something you want to volunteer in, but again I think it depends on why you are volunteering and what you're looking to get out of a volunteer experience.

LH: Is there anything you wish the public knew more about or any facts you wish were more widely broadcasted? Or is there any information that may be well known by the medical community that may not have been broadcasted to the rest of the general population?

AR: I think everyone probably knows smoking is not good, so that's not the answer, and I think everyone knows the air quality should be better, so that's also not the answer. I guess the main message, not only for people with lung disease, especially chronic cases, is how important it is to communicate effectively and truthfully with the physicians, and nurse practitioners, and your care team, because we can only help and advise as much as we think the patient understands and

follows through with some of the recommendations and treatments. There is no question that some of that drugs that we recommend are expensive and can't always be filled by the patients, we know the patients are scared at times about the process they're going through, and they may need some emotional support to help them and their family go through it, so I think being upfront with your caregiver and asking questions, not being afraid to ask why am I being given a certain medication, or what should I expect from my diagnosis, or from the medication I'm about to take. Being a more involved patient is probably best advice I would recommend.

LH: What is one of your biggest accomplishments, both personally and professionally?

AR: My involvement with the American Lung Association has been very rewarding because I've stuck with it so long and the reason I got involved with it in the first place is as a pulmonary physician I just thought it was pat of my job, part of my career was to help move among the mission of the American Lung Association, help them prove lung health. Whether its by advocating for a new law that promotes clean air, or whether its educating patients and caregivers about lung disease and the medications, I just felt that was a way I could use my pulmonary expertise to elaborate and affect more people, rather than just the patients I see in my office every 20 minutes. Helping a state law pass for clean air does a lot more good for a lot more people than just saying stop smoking in my office, so I think my greatest accomplishment has been being able to stay so involved with the American Lung Association, and I was able to stick with it and be involved both regionally and nationally...I've enjoyed that and I think it has been very well worth it.

LH: With all the different positions you have held with the American Lung Association, have their been any people who have influenced your decision along the way to continue being involved in this organization?

AR: Well, I think the people who I've worked with, both locally and nationally, who are staff at the American Lung Association, they and other volunteers, who maybe didn't have the medical background or medical commitment some people did, but had the family history, family stories, and personal stories about how lung disease effected them and just seeing how they felt so strongly and passionately about the mission made me say I definitely want to stick with this. I saw this as almost a duty as a pulmonary physician, but I worked alongside people who were really doing this because they were touched by the disease and they were making the effort to spend more time and promote the mission, which just helped reinforce my willingness to be involved.

LH: What are your hopes for the future with some of these conditions, within the field of pulmonology, with patient knowledge, and patient advocacy?

AR: If we're going to get disease specific for a few minutes, I think the recent development of lung cancer screening I'm hoping is going to make a big dent in the death toll with lung cancer, I think the survival rate with lung cancer right now is dismal, and finding lung cancer early we will create an improvement in the at risk population, so that's hopeful and positive movement. If you stick with lung cancer the very significant advancement with generics and the ability to develop chemotherapy drugs we're seeing extended survival with some of the more advanced patients. As far as lung cancer, screening and development of more personalized chemotherapeutic agents have been a big step forward and it think will make more of an impact on survival with lung cancer. I think the COPD population unfortunately is going to be very much a product of smoking that occurs.

Luckily, we have treatments from a symptomatic standpoint, but I would hope that we would have the development of better drugs to help reverse the process then to help control the symptoms, but we just don't seem to have that yet. I think those would be things I would look forward to.

LH: On the topic of cigarettes and smoking, what are your thoughts on e-cigarettes?

AR: I knew you'd ask me that! The short answer is we don't know enough about it. I think the public health community has individuals who look at it at as a safer cigarette, and we just don't know that, some people look at it as a way to quit smoking and we don't know that, we just don't have the evidence that e-cigarettes are all their carried to be. First of all, we don't know what people mean when they say e-cigarettes, all different products, all different varying degrees of temperature that's generated when they're used, chemicals that came out of them, dosages of nicotine, carcinogenics that are contained in them, they're all different products, they aren't a standardized product that allows people to make knowledgeable assessments about them. I certainly don't include them as a routine effort for smoking cessation. I have patients who do start them on their own, and come in and tell me they are using them, and I say the same thing, we don't know a lot about them, I'm not going to tell you to quit, but I am asking you what they're doing it for you as a smoking cessation process, some of them admit they are able to cut down cigarettes for awhile, and some will say they are still smoking cigarettes but they're using these when they aren't smoking regular cigarettes. So it's an unknown. I think a lot of people are apprehensive about what to do about e-cigarettes because even the FDA hasn't been able to come out and speak clearly about what they're going to recommend.

An Interview with Deborah Brown | *by Liz Healy*

Deborah P. Brown, President and CEO

Deborah P. Brown is a 33 year employee of the American Lung Association of the Mid-Atlantic. She holds a BS degree in Public Health from West Chester University and an MS degree in Health Education from St. Joseph's University. She has been a Certified Health Education Specialist since 1993.

Ms. Brown began her career as a health educator responsible for the development, implementation and evaluation of adult and pediatric lung disease programs. She was later promoted to the position as program director, vice president of advocacy, mission and communication before being appointed president and CEO. She oversees an $11 million budget for a six state and District of Columbia region, along with over 50 employees.

Her past experiences have included working on advocacy issues in the areas of tobacco, asthma, school health and healthcare, for the past 25years. Passage of Delaware's Clean Indoor Air Act in 2002, the second comprehensive law in the country, is among her major accomplishments. Since then she has been involved in passage of the Pennsylvania Clean Indoor Air law, anti-idling legislation, and numerous environmental campaigns at both the state and federal levels. She has served as the chairperson for coalitions and partnerships throughout the Mid-Atlantic Region.

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Ms. Brown has written curriculum and lesson plans for various health education programs and has developed and implemented training programs for school personnel throughout Mid-Atlantic Region. She also has extensive background in grant writing.

LH: You've been working with the American Lung Association for quite sometime, what changes have you seen over this time with lung diseases, air quality, and associated issues?

DB: As far as lung disease, I think we're starting to see an increase, particularly, in the number of women with lung disease, I would specifically say lung cancer. It is the number one cancer killer of women and has been since 1987. At the American Lung Association we did a survey and only 1% of women, it was top of mind for them that lung cancer was the number one cancer killer, 87% said it was breast cancer. So I think one of the things I've seen happen is that women are more effected by lung cancer and COPD. I see that there is not the awareness that is created around some of the other cancers or other diseases, so I think one of the challenges we have is to make sure everyone is fully aware. As far as tobacco use is concerned, one of the changes I have seen over the years is that we are no longer dealing with only tobacco cigarettes, we are now dealing with new emerging products, such as electronic cigarettes, snuff, new cigars, everyone is looking towards those newer products, and that has really taken a toll on the health of many of our citizens particularly here in Delaware and we've had to change our strategies for how we educate individuals on tobacco use.

LH: In Delaware, are there any major issues you see specifically, or throughout the Mid-Atlantic region as a whole, that citizens should be more aware of?

DB: Again, lung cancer is definitely something we're going to keep seeing arise... one of the things about diagnosing women is often COPD is misdiagnosed. Women go in, and anxiety is potentially one of the symptoms that go along with COPD, and so often the treatment doesn't happen until sometimes the individual is really incapacitated. I also think making sure that medications are tested on women; women react differently based on their make up- estrogen plays a role in some of those things, their lung size- I think they are all issues were seeing in Delaware, as well as the Mid-Atlantic region. Tobacco control policy... I think Delaware has done a really good job over the years at making sure we have good policies in place. Delaware's Clean Indoor Air Act...Delaware was the second state in the country to adopt a clean indoor air law and it is still considered one of the most comprehensive in the country, so a lot of other laws are modeled after this particular law...in July, the governor signed House Bill 5, which added electronic cigarettes to the Clean Indoor Air Act, with one minor flaw, which was the vaping establishments, but we were only the fifth state in the country to do that, and I think Delaware does a lot of good things, and one of the areas I think we're falling particularly in tobacco control policy is the prevention and cessation dollars. Delaware has seen a dramatic decrease in the amount of dollars that has been spent on prevention cessation, and when I say that I mean our youth prevention programs, and all types of cessation programs whether it's telephonic, counseling, one on one, an online program, and as we start to see those dollars drop. Our fear at the American Lung Association is that we are going to see the number of people smoking increase. We've seen that in other states and Delaware needs to look at its investment in tobacco control and make sure that we are doing what we need to do to prevent

young people from ever starting, and helping people who want to quit, quit.

The other area in tobacco prevention that we're somewhat lacking is on our tobacco tax. Delaware has adopted a '$1.60 per pack act' on cigarettes and we really are right at the national average, so we need to increase that because we know when you increase the tobacco tax, young people are very price sensitive so they will likely not purchase these products, and we know adults are also price sensitive in that they will want to quit smoking. That's been proven, it's the best practice throughout the country, and we need Delaware to look at those two measures. Other measure here in Delaware include air quality; we have done a lot of great work to make sure that our air is clean and to make sure companies aren't polluting, and automobiles are doing what they need, but we also are at the mercy of some of our counter parts in other states. The air pollution can flow through Delaware, and we need to make sure we are supporting federal policies that protect Delawareans from air pollution, which we know also has a link to lung cancer and lung disease.

> "… Delaware needs to look at its investment in tobacco control and make sure that we are doing what we need to do to prevent young people from ever starting, and helping people who want to quit, *quit*."
>
> — **Deborah P. Brown**, *President and CEO, American Lung Association of the Mid-Atlantic*

LH: Have you found that there are any areas in the state that have more polluted air than others, or have showed up as having more cases of lung related issues than others?

DB: I think that's hard to determine, certainly when you're living along the I-95 quarter, you're going to be exposed to more pollutants because of vehicle emissions. I don't think there's any one area, but the important thing to remember about air quality is that air travels, it doesn't stay in one area. If a company spews something accidentally, everyone is affected by it, and I think we need to remember that, it's just not certain areas that are more susceptible to the poor air quality, we all are.

LH: You sent me some information about some programs in Delaware, do you think any programs have had a significant impact? Are there any programs that have been particularly successful?

DB: Yes, actually two programs, the first is our Kick Butts Generation. Which is our teen youth empowerment program, which we use in tobacco control. We started with a handful of young people and we are now at 12,000 members, and I would say very vocal members...one of our goals is when you look at a pie chart of Delaware, you usually see never smoked, former smokers, smokers, and one of the things we're seeing which is so exciting and I truly believe some of the investment in the kick butts generation has truly paid off, but we are seeing that number of never smoked slowly increase and I would like to think that the American Lung Association and our work with the Division of Public Health on the Kick Butts Generation has made that difference. The other program that's part of the Kick Butts Generation is called Teens Against Tobacco Use, and it really is the beginning for the Kick Butts Generation. They go out and use this program to educate younger children and their peers about the harms of smoking, and they do it in a variety of ways some are very creative. We've had a drumline, we've had people sing, we've had theater, and it really is a credit to the young people involved that they use the skill sets that they have to tell the message about the harms of tobacco and I think that what makes it so successful and endearing to people. The other program is an asthma program, and it's something we've been doing for 20-25 years now, it's an asthma camp. It's for children ages 7-12 who have moderate to severe asthma and it gives them a week long opportunity, or weekend long depending upon which camp, to learn more about their asthma, but it also allows them to be a normal child in the summer and have fun at a camp that they might not otherwise get the opportunity to go to because their asthma or lung disease might be debilitating. Those two programs have really made a difference, with the camp we were able to involve nurses, physician's assistants, respiratory therapists, respiratory therapy students, so it's a good opportunity for healthcare professionals to get involved in asthma management as well.

LH: Are there any new projects the American Lung Association is working on, or any projects that haven't gotten off the ground yet that people are looking forward to?

DB: We have something called lung force, lung force is really a new effort for us, it's been about a year and a half now, and it's really a program to engage women in particular, but patients, caregivers, healthcare providers, and really get them to look at lung cancer and the importance of making sure we educate people about lung cancer is and that anyone can get it. I think that's probably the most important point about lung cancer in general, is that you don't have to be a smoker, most people think only smokers get lung cancer, and that's not what we know, we know anyone can get it. And so that program is really what we've been kicking off. Valerie Harper has been involved, Kellie Pickler has been involved, and so we've involved a lot of talented people who have circumstances that they've been affected by. We just really want to give hope to lung cancer patients that they're not going to be a statistic anymore and there is treatment out there that can help them.

LH: What are some of the more challenging parts of your job and what are some of the challenges you face when trying to get information and statistics out there to the general public?

DB: Well, I can think of two off of the top of my head; the first one is that most people, particularly here in Delaware, think that because we passed the Clean Indoor Air Law that all of our work with tobacco control is done, but as I mentioned before, one of the challenges is the

new emerging products that are coming out on a regular basis. They create more challenges for us because there is a lack of understanding and in the case of electronic cigarettes, there's a lack of regulation. There are big stores popping up all over the state, and there is no regulation of those particular stores, so I think the challenge is that people think tobacco control is under control, and we still have a lot of work to do to make sure that the 'never smoked' number is going even further, so that would be challenge number one. Number two is that a lot of people look at the stigma of lung cancer and say 'well they've done it to themselves because they smoke,' so I think it's our job to educate people that not everyone that gets lung cancer smokes, it could be occupationally related, it could be radon related, it could be air quality related, it could be genetically related, there are a lot of reasons, so not to look at that person like they did it to themselves. On the flipside of that is if that person did smoke, it doesn't mean they don't deserve the proper treatment and help they should be getting. I don't think we do that with any other disease, so I don't think lung cancer or COPD should be put into that category.

LH: What are your thoughts about these e-cigarettes and vaping devices? What do you think the future will hold with these devices and how do you think organizations like the American Lung Association will handle the future of these devices?

DB: Well the American Lung Association supports electronic cigarettes being put into smoke free laws and ordinances and we think that they should be treated like tobacco products. We're really waiting for the FDA to begin oversight over these product, and we've been waiting 2 to 3 years now for them to step up and do that. But we are starting to see the number of young people utilizing e-cigarettes increasing, and the number of adults using them increasing. In states where they aren't as progressive as the state of Delaware and they don't have electronic cigarettes as part of indoor air laws, they're using them anywhere and everywhere they want- in restaurants, in workplaces, etc, and we don't know what people are being exposed to. And maybe there is a clean indoor air law, so maybe they're using other tobacco products, something like snuff during the day, they're smoking cigarettes, and using electronic cigarettes, so I think what were going to see as a trend is these products are going to keep emerging and were going to hustle to try and keep up with times. Any help the FDA can give us in terms of regulations that helps us with the limited resources we have in public health helps us better make policy decisions but I think one of the things we're going to have to unfortunately wait and see on is these products are fairly new so we don't know all of the health consequences that are associated. We are seeing an increase in poisonings, for example, because of the e-liquids used in electronic cigarettes. Are we going to see that increase even more? Are we going to have more adults burned by e-cigarettes? These are all things were going to have to start addressing as public health organizations.

LH: As far as lung conditions are concerned, or issues related to air quality are concerned, have you seen any trends here in Delaware of concern?

DB: Again I think that probably with women and COPD were starting to see more of that, and some of that is women started smoking later than men, even though I said there isn't a stigma, the fact is women did start smoking later than men. And I think we're starting to see some of that come forth as COPD increases. The other thing, as far as air quality, I really do think that Delaware has done a great job in terms of putting measures in place, and I do think we're at the mercy of our neighboring sates maybe not putting the same measures in place, we all need to do our part, less driving, and fewer cars create less air quality issues, but I think we really need to remain strong on trying to get our counter parts and other states to take similar actions that Delaware has.

> "We want to do everything we can to protect the air we breathe… Regardless of who you are, lung cancer and lung disease can affect you on any given day."
>
> — **Deborah P. Brown**, *President and CEO, American Lung Association of the Mid-Atlantic*

LH: Do you have any hopes for things that will change over the next 5-10 years, or any specific goals? You mentioned you'd like to increase that number of "never have smoked", for example.

DB: Yes, as you said, bringing the smoking rates down in youth and adults, we want to make sure that nationwide everyone is protected by secondhand smoke, instead of 27 or 28 states having laws, every state needs to have a law that protects their citizens.We want to do everything we can to protect the air we breathe, we want to protect the Clean Air Act which has had numerous attempts to be weakened at the federal level, and I think the other part of this is really just to make sure that everyone knows that regardless of who you are, lung cancer and lung disease can affect you on any given day.

LH: The Clean Indoor Air Act was quite an accomplishment and obviously took quite a process, how did you start to get involved with that and get the ball rolling?

DB: Well, I've been with the American Lung Association for 34 years and in 2002 when the clean indoor air act was passed, we had a grant from the Robert Wood Johnson Foundation which I was the lead on

so we were very active in making sure the Clean Indoor Air Act was passed here in Delaware and it was a natural time for us as an organization and to go back and work with some of the same legislators we worked with in 2002, to say we really need to make sure that all Delawareans are protected from second hand emissions and electronic cigarettes and it was really a natural progression for the American Lung Association to be involved in that policy.

LH: Anything else that you think the readers should know?

DB: The one other thing I did want to mention, and it is tobacco related, is a program at the American Lung Association we work with the Division of Public Health on, and it's called a mini grant program. I think it's important because last year we had 31 agencies receive mini grants and they can range anywhere from one thousand to up to twelve thousand dollars, and those mini grants really give communities an opportunity to do programs that are very community-oriented. For example, a Boys and Girls Club in Sussex county has very specific needs and challenges, and it allows them to develop the program so that it best fits the population there, and again, when you go back to some of the successes that we've had in decreasing youth tobacco use I really do think that some of these programs have made a difference. The other thing that I think is really unique to Delaware is that all of our beaches have smoke free policies in place, and it's not just beach areas, it's Delaware City, which a lot of people come to visit with Pea Patch Island and Fort Delaware, those are all smoke free areas, and so I think that Delaware has been very progressive in not only adopting a clean indoor air law but branching that out into smaller communities and doing prevention and public policy and cessation programs and so I really do think that those things combined have made a difference. We know tobacco use is the single biggest preventable cause of death and disability and so I think that Delaware has done a good job of addressing that.

E-cigarettes in Delaware:

An Overview of Concerns of Potential Health Risks & Related Factors

by Sean J. Tullier, Delaware Public Health Association

Abstract

E-cigarettes and vaporizers (also known as electronic smoking devices or ESDs) are smokeless nicotine products that heat up a propylene glycol, or a vegetable glycerin based liquid, containing the addictive chemical and various flavenoids to produce a vapor. The devices mimic the effect of true smoking while delivering the nicotine that users crave without causing combustion. These products are comprised of a cartridge, a battery-powered atomizer for heat, and a liquid component, referred to as "e-liquid" or "e-juice". The user presses a button on the device that heats up the atomizer enough to cause the liquid to evaporate without catching fire. The user inhales the vapor through the mouthpiece and delivers the nicotine to their lungs – as well as exhales the visible gas like traditional tobacco products. E-cigarettes are marketed to the public as an alternative to smoking traditional tobacco with the added enjoyment of a wide variety of flavors. Despite health concerns related to E-cigarettes, due to factors such as generally unknown long-term health effects, a recent arrival to the market of smoking related products, and skyrocketing popularity in the United States, neither the heating components and mechanisms made to release the vapor, nor the "e-juice" liquid, are regulated by the FDA.

Keywords: electronic cigarettes, e-cigarettes, electronic smoking device, vaping

Correspondence concerning this publication should be addressed to Timothy Gibbs, DPHA Executive Director, Suite L10 4765 Ogletown Stanton Rd, Newark, DE 19713

Contact: tgibbs@delamed.org

Sean Tullier is currently a student at Tulane University and is a research intern at the DPHA.

To read the entire paper, please visit: http://bit.ly/1Ql2ljR

Our Future in Ending Tobacco Use in Delaware:

Perspectives from the Millennial Generation

Michael Peterson, EdD | Kristin Yurkanin, Jennie Turner, Rachel Blair, Jillian Sullivan, Ines Crato, and Kellye Foulke

This nation's response to the tobacco use epidemic is described appropriately by Charles Dickens opening line from his famous novel, the Tale of Two Cities, "*It was the best of times, it was the worst of times…*" The epidemic of tobacco use and the toll it has taken in disease, disability, and death ranks among the greatest public health catastrophes in modern history. Despite this tragedy this nation has remarkably rallied over the past 50 years and made sweeping impact through tobacco use prevention and control efforts and these outcomes certainly rank as one of public health's greatest successes.

Nonetheless, change is upon us, the tobacco industry is not idle and is actively working to recruit new and more users of their products. Products that if used as intended will further burden our nation's health and economy. Public health and our aligned partners must recognize that even with our success, we are not fast or nimble enough in our efforts to deter the tobacco industry in its quest to hook a new generation of tobacco users. Simply put, more must be done, priorities have to change and the public and political will to do so must be achieved.

Each day, more than 3,200 youth (those younger than 18 years of age) smoke their first cigarette and another 2,100 youth and young adults who are occasional smokers progress to become daily smokers. Most first users of cigarettes occurs by 18 years of age (87%), with nearly all first users inhaling that addictive first puff by 26 years of age (98%).[2] If we recognize only one fact it is this, despite all of our gains we are at the precipice of losing another generation to tobacco use, and that cannot happen. There is no denying that the tobacco industry continues to position itself to sustain its sales by recruiting youth to be its future consumer of all their nicotine-containing products especially the emerging electronic nicotine delivery systems (ENDS) commonly known as e-cigarettes.

The tobacco industry is clearly targeting the Millennial Generation, a population of youth and young adults born between1982-2005 that amount to nearly 85 million people in the United States who are forging a distinctive path in life. Now ranging in age from 10-33, they have taken over K-12, have already entered and graduated college and are entering and rising in the workforce ranks. They are relatively unattached to organized politics and religion, linked by social media, burdened by debt, distrustful of people, and in no rush to marry. They are however, optimistic about their future because they feel they can have a great impact on it. A future that will be influenced by the tobacco industry who want to make the Millennials their next generation of users and addicts, and sadly another generation that may become a statistic of premature morbidity and mortality.

The remaining parts of this commentary are six perspectives from students who are attending the University of Delaware. These students will be entering the health professions and want to make a difference in how we address tobacco prevention and control. They will share insights, bold and courageous, that address issues from funding to taxation, from e-cigarettes to flavored tobacco, from prohibiting possession for minors to making it illegal to smoke in motor vehicles when a minor present. These issues are important to them because they will determine whether their generation, the Millennials, will make an impact in changing the culture of tobacco use or sadly succumb to it.

There is much optimism in the Millennial Generation that they will make deep impacts in improving this nation's health. When I read their viewpoints and understand their desire to create change, I am emboldened by their spirit and believe they will make a difference. Please read their perspectives with an openness of thought and appreciation. Some opinions may be perceived as controversial and not

necessarily aligned with the prevailing views of traditional thinking, method or approach. I encourage you to try to understand their passionate pleas for what they believe needs to be done. There is no better place that these perspectives should be valued and encouraged than in an academic publication such as the Delaware Journal of Public Health. These students are advancing the marketplace of ideas and cultivating solutions for our future. The vitality of our nation and state depends on this right to freely think, to spur on new ideas that challenge old notions and subsequently generate answers to our dilemmas. In fact, it is what I contend is the fuel that will catalyze Delaware to achieve its aspirations to be the healthiest state in the nation.

Reforming the Delaware Health Fund | *by Jennie Turner*

Funding is one of the most critical elements in fighting the tobacco industry. Each week in Delaware, the tobacco industry spends over $1 million dollars to market their products compared to $16 thousand dollars this state spends a week to counter that marketing. Remarkably, for every dollar Delaware spends on counter marketing strategies the industry invests $62 dollars to make sure they recruit new tobacco users who are largely younger than 18 years old.

On July 20, 1999, Governor Carper signed into law SB-8 which created the Delaware Health Fund, a special fund of annual payments to be received pursuant to the Master Settlement Agreement (MSA). These payments to the Health Fund are usually in excess of $25 million dollars annually. One of the principal purposes for these funds is to invest in efforts that support tobacco prevention and control. Nonetheless, to date, the Delaware Health Fund Advisory Committee (DHFAC), has not made recommendations to the Governor and the General Assembly for appropriating sufficient funding that meets the Centers for Disease Control and Prevention recommended level of funding investment for Delaware, an amount of $13 million dollars compared to the roughly $6.5 million it currently receives from all sources of funding including CDC. Furthermore, when funding recommendations have been made by the DHFAC they have been reduced in the Governor's Recommended Budget and subsequently the Budget Bill that is voted on by the General Assembly. This must change

Former Governor, now Senator, Tom Carper

and how decisions are made to obligate the Health Fund dollars also needs to be reformed to preserve the intent of the MSA, and the intent was to prioritize and focus these funds to prevent and reduce tobacco use.

Health Fund allocation decisions should be evidence-based and prioritized on population-level need and its potential impact. Of all the initiatives supported by the Health Fund, the one that achieves this level of rigor is tobacco prevention and control. Certainly any one of the other initiatives over the years could easily claim a need for their respective programs to be funded. This is not the concern; the issue is to reform funding decisions and prioritize how Delaware's number one killer – tobacco use is impacted and eliminated. Until we win that war, or at least dominant in it, I question why we should be diluting efforts to thwart this State's most significant health behavior – tobacco use and the impact is has on our state in lives and dollars.

I am an emerging health professional and a native Delawarean who has great pride in my state. As a Millennial, I have been blessed to grow up in a generally tobacco-free environment, but I see that changing, tobacco including e-cigarettes is steadily gaining momentum among my peers. We need to better prioritize the funds we have available and start treating the Health Fund as a sacred treasure to support all that is needed to defeat the efforts of the tobacco industry.

Reforming the Delaware Tobacco Excise Tax | *by Rachel Blair*

Numerous economic studies in peer-reviewed journals have documented that cigarette tax or price increases reduce both adult and youth tobacco use. The general consensus is that every 10 percent increase in the real price of cigarettes reduces overall cigarette consumption by approximately 3-5 percent, reduces the number of young-adult smokers by 3.5 percent, and reduces the number of youth who smoke by approximately 7 percent.

Cigarette companies have long opposed tobacco tax increases because they know very well that raising cigarette prices is one of the most effective ways to prevent and reduce smoking, especially among youth. A $1.00 increase in Delaware's cigarette tax would prevent approximately 4,500 youth from smoking and, over five years, save an estimated $1.83 million in lung cancer, heart attack, and stroke costs.

Delaware has not raised its cigarette tax since 2009 and its current cigarette tax is $1.60 per pack, the 23rd highest in the nation and this is at the nationwide average of $1.60 per pack.8 Delaware also has excise tax inequities with other tobacco products

such as smokeless cigars, pipe tobacco, and e-cigarettes that are taxed at a lower unit price than cigarettes and this should be changed. The excise tax helps Delaware bring in more than $128 million in annual tobacco tax revenues and with New Hampshire is the only other state that receives more than 3 percent of its total revenue from tobacco.

The states surrounding Delaware have varying excise taxes. For example, New Jersey, $2.70; Maryland, $2.00; Pennsylvania, $1.60 and these states also have sales taxes which increase cost per pack. These excise tax differences make Delaware a primary destination to purchase tobacco because for those who live in other states near the border it is less expensive to purchase it. This raises a question as to whether Delaware is being socially responsible by keeping its tobacco excise tax lower.

Furthermore, in light of this windfall of funding, it was curious to discover that none of excise tax revenue is applied to any tobacco prevention and control efforts. The CDC Best Practices Guide for Comprehensive Tobacco Control Programs recommends that at least 9 percent of combined funding from the tobacco excise tax and the Delaware Health Fund (approximately $13 million) be applied to prevention and control efforts.

Earmarking tobacco excise tax revenue would be an important strategy in supporting the resources necessary to effectively prevention and control tobacco use in Delaware. This would require designating some portion of the excise tax collection to address tobacco-related issues. About 26 states currently earmark funds from the tobacco excise tax and it would be important for Delaware to be the 27th and to dedicate a portion of these funds to tobacco prevention and control efforts. This is no different in how Delaware allocates its gasoline and special fuel taxes where 100 percent of these funds go to support roads, highways and transportation facilities in Delaware and the tobacco excise tax shouldn't be different.

If Delaware truly aspires to significantly reduce impacts of tobacco use it must enact a tobacco excise tax policy that is an effective deterrent to purchasing and using tobacco products, and use some portion of the excise tax revenue to support tobacco prevention and control initiatives. This reform is vital to the health and economic vitality of this state, a place I cherish and want to succeed because it is making the right choices for the health of the people who live here.

Prohibiting Tobacco Possession for Minors | *by Ines Crato*

A topic that has received recent attention in Delaware is whether to prohibit minors from possessing tobacco. While it is illegal to sell tobacco products to minors in Delaware, a minor can possess or even use tobacco in public. All 50 states and the District of Columbia have laws that restrict the sale of tobacco products to minors. In addition to restricting the sale, 45 states and the District of Columbia have laws that also prohibit the purchase and/or underage possession (PUP) of tobacco products by minors. These states have various levels of fines, written warnings, community service, requirements for educational classes concerning the dangers of tobacco use, and in some cases parents may also be held accountable and may have to attend the educational program with their child. These laws have been passed with the intention of reducing youth smoking by making youth more personally responsible for remaining tobacco-free. At face value this seems plausible and something Delaware should explore in its strategy to prevent youth from acquiring and using tobacco.

Nonetheless, youth tobacco possession laws are generally not supported by most tobacco prevention advocates. The Community Guide to Preventive Services concludes that there is insufficient evidence for or against possession laws for minors; however, there is a precedent for youth possession laws in alcohol control. The 1984 National Minimum Drinking Age Act required states to set at 21 years the minimum age for purchasing and publicly possessing alcoholic beverages. States risked losing highway funds if they did not comply with this law, and not surprisingly, all 50 states implemented substantial penalties for first-time possession of alcohol by minors. Compare this to no penalties for tobacco possession for minors in Delaware. While the federal government has decreed that alcohol and tobacco cannot be purchased by minors (under 21 years and 18 years respectively), Delaware has chosen a different approach for possession of these substances. An approach that I contend has only allowed tobacco use to be an accepted part of the youth culture.

This leads to another body of literature that suggests that a minor's social supply network for tobacco, particularly via friends, caregivers and others, such as older siblings, is a key tobacco source for possession among youth. This would suggest that possession laws, especially for very young minors, may have an impact on tobacco possession and use. The issue of social supply networks raises important questions about the additional measures needed to prevent and reduce tobacco use among youth.

It is reasonable to infer that policies that make tobacco more difficult to obtain, possess and use warrants adoption and implementation. It is time to resolve this extreme disconnect in alcohol and tobacco possession by underage individuals. Many positive effects can emerge from stricter tobacco possession laws that may deter tobacco initiation and lead people into healthier life choices. If Delaware is to make a significant change in the culture of tobacco use it must take a brave and courageous step to enact legislation that prohibits the possession of tobacco for youth.

Prohibiting Smoking in Vehicles with Minors

by Kristin Yurkanin

The dangers of secondhand smoke are well documented and have led to the passing of smoke-free laws throughout the United States. Leading public health researchers also concur that there is no risk-free level of exposure to secondhand smoke and that the only effective way to protect people from harm is to eliminate smoking in all enclosed spaces especially motor vehicles. Sadly, we have failed to protect youth from secondhand smoke in this setting. Recent scientific studies have produced evidence to conclude that allowing tobacco users to smoke in vehicles with youth occupants endangers the lives of those children who are the most vulnerable victims in these environments.

Laws to prohibit smoking in vehicles when youth are present critically important to protecting the lives of children and improving overall public health. Given the scientific evidence supporting these laws is now explicitly clear that Delaware must follow suit. The American Academy of Pediatrics, American Lung Association, and American Cancer Society have taken the position that these laws are needed to protect children, whose developing bodies are especially vulnerable to the ill-effects caused by their acute exposure to tobacco smoke in motor vehicles.

During my youth I remember growing up in a culture where cigarette smoking was acceptable, whether I was in a home, in public, or in a vehicle, tobacco use was appropriate. Now, as a graduate student and emerging health professional I want to make a difference in the lives of children who

may not have a voice on this issue. This issue among many can and should be implemented in Delaware. I want to pursue action for legislation to ban smoking in vehicles with minors. I want to have a voice in ensuring Delaware's children and their health is protected and they know what it is like to live and breathe in a smoke-free environment.

Restricting the Use of E-Cigarettes | *by Jillian Sullivan*

My generation, the Millennials, have been afforded an environment and culture that is relatively tobacco-free. I grew up fully aware of the detrimental health effects of smoking cigarettes. Now with the advent of e-cigarettes the landscape has changed and with it the culture of tobacco use among my generation.

E-cigarettes were first introduced into the U.S. marketplace in 2007 with deceptively shrewd advertising that made e-cigarettes out to be a device that would assist smokers to cut back on their habit. Not even eight years later, millions of Americans are using e-cigarettes. A Reuters poll estimates that approximately 15 percent of adults under the age of 40 are using e-cigarettes. Despite growing in popularity, the research is finally confirming that e-cigarettes are not a safer or healthier alternative to smoking. In fact, e-cigarettes contain ingredients that are known to be toxic to humans. Also, because clinical studies about the safety of e-cigarettes have not been submitted to the U.S. Food and Drug Administration, users of the product have no way of knowing which chemicals they contain or how much nicotine they are inhaling. Furthermore, there are no e-cigarettes approved by the U.S. Food and Drug Administration (FDA) for therapeutic uses so they cannot be recommended as a cessation aid.

Sadly, as the data reveal, youth are using e-cigarettes at increasing and alarming rates. According to the CDC, e-cigarette use among both high school and middle school students tripled in one year, increasing from 4.5 percent in 2013 to 13.4 percent in 2014 among high school students, and from 1.1 percent in 2013 to 3.9 percent in 2014 among middle school students. Surprisingly, youth use of e-cigarettes nationally has now surpassed youth cigarette smoking.

Much of this can be attributed to the aggressive marketing and advertising that glamorizes e-cigarette use and a retail marketplace that has many loopholes that enable youth to easily purchase e-cigarettes online. Basic FDA oversight, which would include youth access and possession restrictions, is needed to protect youth from becoming the next generation hooked on nicotine.

Furthermore, e-cigarettes produce vapors that affect air quality. With the health threat that e-cigarettes pose to everyone, especially youth, it is important that additional restrictions are placed on e-cigarettes. Safety standards should be set to regulate the production of e-cigarettes and monitor levels of nicotine that are used in them and labeling should be required to accurately reflect these levels. Child-proof packaging of e-liquids needs to be required to reduce the number of youth who are accidentally exposed to nicotine. And one of the most effective tools to prevent and restrict e-cigarette use is to implement an excise tax comparable to what is levied on cigarettes.

We need to give youth of my generation a chance to grow-up in an environment that is tobacco free. To do so, we need to take a daring step in restricting the use of e-cigarettes making it extraordinarily difficult to purchase, possess and use.

Restricting Flavored Tobacco Products | *by Kellye Foulke*

The scientific literature recently suggested that flavors are a major driver of sales among youth of products that can be consumed. Youth want intense flavors in their products. While adults enjoy mild and natural flavors, youth prefer high impact flavors and they also like products twice as sweet as adults.

Research has also identified that flavored products encourage youth smoking and initiation and help young occasional smokers to become daily smokers by reducing or masking the natural harshness and taste of

tobacco smoke and increasing the acceptability of a toxic product.

This is why in 2009, the Food and Drug Administration, prohibited the manufacturing, marketing and sale of cigarettes containing flavors such as vanilla, chocolate, cherry, and coffee. This law would extend to flavored cigarettes and flavored cigarette component parts such as tobacco, filter or paper.

As restrictive as this law may appear, menthol cigarettes are still available and remain on the market. Other flavored products include electronic cigarettes, cigars, smokeless tobacco, hookah tobacco called shisha, little cigars, and dissolvable tobacco products (e.g., strips and orbs), as well as flavored component parts (e.g., blunt wraps).

Given the significant threat to public health that flavored tobacco products pose, many local and state governments are considering ways to regulate their sale, pricing, marketing and advertising to further prevent youth from tobacco use.

Some approaches Delaware legislators may want to consider enacting that regulate flavored tobacco products include the following: (1) restricting sales by prohibiting sales of flavored tobacco products at certain locations such as stores near schools or stores with a pharmacy. (2) restricting product access by limiting how flavored products are distributed or sold, (3) mandating that all flavored tobacco products be sold via face-to-face transactions, and (4) regulating tobacco product pricing by restricting price discounts provided by tobacco manufacturers or retailers, such as multi-pack offers (e.g., buy two packs, get one free), product giveaways, samples, or point redemption schemes.

While these policy options would be an excellent start, much more must be done. And I certainly give the tobacco industry credit for ingenuity, not that I want to give them credit for anything but the lives they have taken and destroyed. It seemed like we had the tobacco industry on its heels, but it found ways to circumvent and took advantage of ambiguities in federal law and it continues to find new ways to addict youth to tobacco.

I encourage Delaware legislators to enact legislation that restricts and/or bans the marketing and sales of flavored tobacco products.

Conclusion

Whether we agree with these perspectives or not, they are profound and refreshing, and provide a sense of renewed hope that the Millennials are invested in securing their future well-being. They have provided varied and robust insights that speak to the change we all seek, a tobacco-free environment and a culture that embraces health. If the Millennial generation is to truly live longer than any other generation this nation has known, we must understand their desires to prevent tobacco use. We must understand how to affect change among this group and enable them to reduce and eliminate tobacco from the marketplace.

This generation is now receiving the torch from the Baby Boomer Generation and it is being challenged to continue a legacy of progress and innovation that has so profoundly and remarkably changed this nation's health and economic status for the better. Now the Millennials will have an opportunity to achieve what we couldn't, a tobacco-free culture. They have shared six provocative perspectives about what can be done to affect change in making Delaware stronger and more able to become tobacco-free. Will we heed their calling?

This nation's decades-long battle against the tobacco epidemic has successfully prevented millions of premature deaths that would otherwise have occurred – a historic achievement by any measure. The work Delaware has done in this effort must also be applauded, but it is a moment to recognize we must rededicate ourselves to this fight against tobacco and expand our reach to affect change in areas we have imagined but have not had the courage to go. And to also achieve impact in areas unimagined, opportunities that must be discovered that may end this epidemic that has plagued our nation. This isn't easy work, it will require radical thinking, diverse partnerships, and wildly different approaches. We can and must have the perseverance to win this battle.

Michael Peterson is Professor and Chair, Department of Behavioral Health and Nutrition in the College of Health Sciences at the University of Delaware.

Kristin Yurkanin, Jennie Turner, Rachel Blair, Jillian Sullivan, Ines Crato, and Kellye Foulke are students in the College of Health Sciences at the University of Delaware.

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DNA Reporter


The Official Publication of the Delaware Nurses Association

Constituent member of ANA

The mission of the Delaware Nurses Association is to advocate for the interest of professional nurses in the state of Delaware. The Delaware Nurses Association is dedicated to serving its membership by defining, developing, promoting and advancing the profession of nursing as an art and science. Quarterly publication direct mailed to approximately 12,000 RNs and LPNs in Delaware.

Inside DNA REPORTER

Guest Editor

Lyron Deputy, MSN, APRN, MBA
Guest Editor

Lyron Deputy

Lyron Deputy, MSN, APRN, MBA earned his ADN and MSN from Wesley College, and his MBA from Wilmington University. He has been a clinical nurse specialist in health promotion and disease prevention health nursing for over 5 years. Lyron is also an adjunct clinical instructor for the BSN program at Wesley College. He has worked in critical care, orthopedic, occupational, and rehab nursing units. Lyron is currently the CEO of Delaware Sleep Disorder Centers, LLC, a state-wide multidisciplinary sleep organization dedicated to improving overall wellness by providing affordable sleep services for all individuals suffering from sleep ailments. Lyron can be reached at lyron@delsleep.com

Sleep is an essential component of life which aids the body in functions related to preservation, restoration, and memory processing. When the body fails to reach adequate sleep due to disruption, individuals can experience a significant sleep deficit, which in turn can impact the body mentally, physically, and emotionally. There are over 80 classifications of sleep disorders, and it is estimated that over 50 million adults and 40 million children suffer from sleep disorders which can lead to a negative impact on their overall quality of life. Research has shown that lack of sleep or suffering from sleep disorders can have long term effects causing glucose intolerance, high blood pressure, depression, and increased risk for myocardial infarctions. In addition, economic costs related to sleep disorders continue to grow. It has been estimated that patients with undiagnosed obstructive sleep apnea (OSA) have double the healthcare costs compared to patients without OSA, and patients suffering from insomnia have a direct cost of 15.2 billion dollars spent on products and treatments annually.

As a healthcare professional involved in the sleep industry, I recognize that there continues to be a significant lack of awareness and knowledge among healthcare professionals regarding sleep disorders. For this reason, I am pleased to have been provided with the opportunity to enlighten the nursing community and the public with articles related to sleep. My goal is to be able to empower the reader to educate patients, families, and themselves regarding the importance of improving sleep wellness and overall well-being.

The five contributing authors for this edition are from a variety of working backgrounds. The first article is written by Dr. Lucille Gambardella who is no stranger to the DNA Reporter or the nursing community. She holds the distinction as Professor Emeritus at Wesley College and has been a certified clinical specialist in adult psychiatric/mental health nursing for over 30 years. Dr. Gambardella's article explores the impact of sleep on mental health. The second article is written by Elaine Stevenson, MS, RN, CPNP, who works in the sleep clinic at Nemours Children's Hospital. Elaine's article discusses sleep in

Guest Editor continued on page 3

Executive Director's Column

Sarah J. Carmody, MBA

Sarah Carmody

DNA has been actively working on how we can improve our performance, become more agile as an Association, and better serve our members. Building on this work is the publication of the DNA policies and manuals leading to greater transparency. On the DNA website homepage, public disclosures which include education, government and financial policies are available for public review. In addition, DNA committee manuals, election schedule, and Board of Director position descriptions for member review and reference are available in the new DNA members only section.

To access the members only section, login using the same user name and password for accessing the ANA members only section. If you have not accessed the ANA site, create an account. Please note that DNA shares the same web platform as ANA but the two sites are not linked.

As of writing this article, DNA has scheduled a strategic planning meeting to focus on the business of the Association, education and legislation, set goals and determine a path forward. Many thanks to our

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Delaware's Comprehensive Tobacco Control Program

Karyl T Rattay MD, MS,
Paul Silverman DrPH, and
Richard E Killingsworth MPH

Policy and program development is messy. It is sometimes an uncomfortable mix of Politics, Epidemiology, Ethics, Economics and Law (PEEEL). This paper is intended to shed some light on current tobacco control initiatives in Delaware using the PEEEL framework, developed by Dru Bhattacharya.[1]

Politics

It will come as no surprise that tobacco control is perhaps the most politicized issue in public health history. Delaware is not immune to these politics as, for example, policy makers make budget decisions and weigh civil liberties against population-based approaches to health. In addition, the political activity of the tobacco industry is significant and to some extent the health burden from tobacco is directly attributed to their success.

Epidemiology

While we saw improvements in the first decade of this century, Delaware data show that our adult smoking prevalence has remained stagnant for the past few years. Cigarette smoking is the number one preventable killer in Delaware and the United States. During the time period of 2007-2011, lung cancer accounted for nearly one third (29.9 percent) of all cancer deaths in Delaware. During the 2006-2010 time period, Delaware women ranked fourth highest in the nation for lung cancer mortality, and Delaware men ranked twelfth highest for lung cancer mortality. Approximately one in five Delawareans die of a tobacco-related disease. While lung cancer is the disease most associated with tobacco use, tobacco is also responsible for many deaths from heart disease, respiratory diseases and other cancers. With more than 157,500 Delaware adults and high school students smoking regularly, tobacco use is a persistent and serious public health problem.[2]

The epidemic of tobacco use is also changing because of political and economic forces. For example, e-cigarettes have been marketed as a healthier alternative to smoking. E-cigarettes contain nicotine and numerous other chemicals including: ultrafine particles; toxic metals; and a number of carcinogens. There has been an alarming increase in their use.[3]

Ethics

The impact of tobacco use is not distributed evenly throughout the population. The prevalence of smoking is higher among those who have a low income and lower education level, identify as lesbian, bi-sexual, gay or transsexual (LBGT), have disabilities, or who have mental health or substance abuse disorders. There are disparities in access to cessation services which also creates disadvantages in some populations. These differences and others create health inequities.[4]

Another consideration is the conflict between two ethical principles of public health. On one hand there is the obligation to address fundamental causes of disease and requirements for health. On the other we strive to achieve health in a way that respects the rights of individuals in the community.[5] Often, this conflict manifests in arguments for or against policies that restrict the use of tobacco. In some cases, such as exposure to second-hand smoke, the harmful effects of tobacco are not a choice.

Economics

The critical nature of funding is highlighted in a study published in the *Journal of Contemporary Economic Policy*. The study found that adequately funded state tobacco-prevention programs could save up to 20 times the cost of implementing them. Analyzing data from 1991 through 2007, the researchers found that state tobacco control programs that met the established threshold have a sustained impact on the demand for tobacco, and reduced disease and health-care costs.[6] This study reinforces the need for sustained funding for tobacco prevention and control efforts in Delaware.

The annual health care costs directly attributed to smoking use in Delaware is estimated to be $532 million. Of this, $95.6 million is state Medicaid expenditures. Another way to look at this is that

each Delaware household pays $953 annually in state and federal taxes for smoking-caused government expenditures.[7]

Other economic considerations must include the long-term outlook for the state's funding of the tobacco control program, which is largely dependent on revenue from the Master Settlement Agreement. This is an accord reached in 1998 between the state Attorneys General of forty-six states (including Delaware) and the five largest tobacco companies in America. The formula of this agreement has and will likely continue to reduce the revenue to states over time.

Law

The political, epidemiologic, ethical, and economic environment in Delaware has shaped our public policy as manifested by the laws passed by the General Assembly and signed by our governors. For example,

- In 2002 our state became the second to pass a statewide Clean Indoor Air Act (CIAA);
- This year we were the fourth state to include e-cigarettes in our CIAA; and
- In 2003, Delaware's tax on a pack of cigarettes was 55 cents. It was increased in 2007 to $1.15 and to $1.60 in 2009, where it remains. This is the same amount as Pennsylvania, but less than New Jersey ($2.70), Maryland ($2.00), and DC ($2.50).[8] Numerous economic studies in peer-reviewed journals have documented that cigarette tax or price increases reduce both adult and underage smoking. The general consensus is that every 10 percent increase in the real price of cigarettes reduces overall cigarette consumption by approximately three to five percent, reduces the number of young-adult smokers by 3.5 percent, and reduces the number of youth who smoke by six or seven percent.[9]

Based on science and emerging trends, policy makers and advocates may soon need to address new policy initiatives such as:

- Prohibiting smoking (including e-cigarettes) in any vehicle with a minor present;
- Prohibiting smoking (including e-cigarettes) in individual units of multi-unit housing;
- Increasing the cost to vendors to purchase a license to sell tobacco and e-cigarettes;
- Prohibiting the sale of tobacco in places where prescription medications are sold, following the CVS pharmacy chain example;
- Raising the tobacco purchase age to 21;
- Creating tax equity for other tobacco products to be equal to the unit cost of cigarettes; and
- Further increasing the tax on cigarettes

Programs

Politics, ethics, epidemiology, economics and law also shape the programs that we implement. Delaware has been using the best available evidence for well over a decade to implement a comprehensive approach to control tobacco usage. The Centers for Disease Control and Prevention (CDC) recommends the following components of a comprehensive approach: state and community interventions; mass-reach health communication; cessation interventions; surveillance and evaluation; and infrastructure.[10] Here is what this looks like in our state.

- **State and community-based programs**- In Delaware, the Division of Public Health (DPH) offers mini-grants to help tobacco prevention efforts reach the grassroots community. The total amount of grant funding this year is $213,176 and grant amounts range from $1,389 to $12,000. The purpose of the mini-grants is to help us better target specific populations and benefit from the expertise of local nonprofit organizations.
- **Mass-reach health communication** - Mass-reach health communication interventions are powerful tools for preventing the initiation of tobacco use, promoting and facilitating cessation, and shaping social norms related to tobacco use. The Community Preventive Services Task Force[11] recommends mass-reach health communica¬tion interventions on the basis of strong evidence of effectiveness in decreasing the prevalence of tobacco use, increasing cessation efforts, and decreasing initiation of tobacco use among young people.

Approximately $815,000 from the Delaware Health Fund is being used this fiscal year to support mass-reach health communication related to tobacco. By comparison, the tobacco industry invests about $52 million annually in social marketing efforts in Delaware.[12]

DPH uses CDC guidelines and research and Delaware-specific data to develop social marketing campaigns. An effective state mass-reach health communication intervention delivers strategic, culturally appropriate, and high-impact messages via sustained and adequately funded campaigns that are integrated into a comprehensive state tobacco control program effort. To counter the tobacco industry's investments in social marketing in Delaware, we use data from a variety of sources to inform targeted population marketing and messaging. We select appropriate media or methods to target specific populations in conjunction with our media contractor, using media survey data, focus groups, and Nielsen segmentation data.

- **Cessation interventions** - Most smokers who smoke want to quit. Promoting and supporting cessation is a core component of a comprehensive state tobacco control program's efforts to reduce tobacco use. Encouraging and helping tobacco users to quit is effective in reducing tobacco-related disease, death, and health care costs. Population-wide interventions that change societal

environments and norms related to tobacco use — including increases in the unit price of tobacco products, comprehensive smokefree policies, and hard-hitting media campaigns — increase tobacco cessation by motivating tobacco users to quit and making it easier for them to do so. The Delaware Quitline[13] provides over-the-phone and in-person counselling. The Quitsupport website provides supportive cessation information. This year we are spending a little more than one million dollars for the Delaware Quitline and Quitsupport website.

- **Surveillance and Evaluation** - Publicly financed programs need to have account¬ability and demonstrate effectiveness, as well as have access to timely data that can be used for to inform program and policy direc¬tion. Therefore, a critical infrastructure component of any comprehensive tobacco control program is a surveillance and evaluation system that can monitor and document key short-term, intermediate, and long-term outcomes within populations. Our data are obtained for youth from two primary sources, the Youth Risk Behavior Survey[14] and the Youth Tobacco Survey.[15] For adults the data are obtained from the Behavioral Risk Factor Survey[16] and the Adult Tobacco Survey[17].

Conclusion

Politics, ethics, economics, epidemiology and law have shaped Delaware's tobacco control strategy. DPH is continuously open to input from our partners and uses the latest and best science and data to do the "right stuff." However, given that our adult smoking prevalence has remained stable at around 20 percent for the past few years, we need to ask if we are doing enough of the "right stuff." Our eyes are focused on achieving the Surgeon General's challenge to be a tobacco free state in 50 years. In order to accomplish this, we must continue to learn, evolve and change our strategy and tactics based on the best available information. We must work together to align our efforts and leverage resources. And we must make sure we are doing enough of what we need to in order to make this goal a reality.

Karyl T Rattay MD, MS, is the Director for the Delaware Division of Public Health. Paul Silverman, DrPH, is the Associate Deputy Director for the Delaware Division of Public Health. Richard E Killingsworth MPH, is Chief of Health Promotion and Disease Prevention at the Delaware Division of Public Health.

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Family Doctors Continuing the Fight Against Tobacco

by Delaware Academy of Family Physicians

For over a decade the Delaware Academy of Family Physicians (DAFP) has been delivering Tar Wars®, an annual national tobacco-free education program to fourth- and fifth-grade students across Delaware.

In the past 3 years alone Tar Wars® has reached nearly 2,000 Delaware students with a strong message about the dangers of tobacco. The national Tar Wars® program was retired in 2014. DAFP, with the support of the AAFP and American Lung Association, has continued to support the school and community-based work. Considering Delaware ranked 18th for the percentage of our youth in grades 9-12 who currently use any tobacco product, DAFP is not yet ready to end the program anytime soon. "We have to continue sending clear and consistent messages about the dangers of tobacco use to our school-aged children. New products like e-cigarettes and flavored tobaccos are threatening to reverse the positive gains we have seen in recent years, and we simply cannot let that happen." says DAFP board member, Margot Savoy, MD, MPH, FAAFP.

According to Christiana Care Health System Family Medicine resident Raema Mir, MD who has been leading the DAFP Tar Wars® team for over a year, it "is a fun and informative program that brings together teachers, health professionals, and students. The program supplements school education on nicotine and tobacco abuse and gives a forum for students to directly address questions to a health expert. The students are armed with awareness of the tactics used by the tobacco industry. We also touch recent trends e.g. vaping and legalization of marijuana." Currently the program is only offered at 4-5 schools a year although over one hundred schools are invited annually to schedule the hand-on interactive presentation. Mir says "Tar Wars® is a great tobacco-free education opportunity, and I would like to see us partner with more schools in the future." Most of the presentations are currently given by resident family physicians; however, in the past DAFP has also trained practicing physicians, nurses, and health professional students to deliver the content.

One major highlight of the program is an opportunity for students to enter into a poster contest where they create their own tobacco-free message to share with their peers. The quality of the entries is always extraordinary, and Dr. Mir is "always impressed by the honesty, curiosity, and creativity of our students." In the past winning posters entries have received prizes like monetary awards and Blue Rocks tickets. To arrange a DAFP Tar Wars® presentation or to get more information, please visit our website at www.delfamdoc.org or contact us at dafp@delfamdoc.org.

Margot Savoy, MD, MPH, is a member of the DPHA Advisory Council, past-president of the Delaware Academy of Family Physicians, and her role as medical director of the family medicine centers at Christiana Care allows her to combine her interests in quality improvement, patient-centered care, evidenced-based medicine and leadership development.

News from the APHA Conference in Chicago

The theme of this year's APHA national conference waswas "Health In All Policies." Quoting directly from the APHA website "The environments in which people live, work, learn and play have a tremendous impact on their health. Responsibility for the social determinants of health falls to many nontraditional health partners, such as housing, transportation, education, air quality, parks, criminal justice, energy, and employment agencies. Public health agencies and organizations will need to work with those who are best positioned to create policies (legal and regulatory) and practices that promote healthy communities and environments and secure the many co-benefits that can be attained through healthy public policy."

Health in All Policies
APHA 143rd ANNUAL MEETING & EXPO

The section on Tobacco, Alcohol, and Other Drugs (ATOD) honored Delaware's own **atTAcK Addiction** program with their Community-based Leadership Award.

The State of Delaware was well represented at the meeting as both attendees and as presenters. See the box beow* for additional information on Delaware presentations. In addition, Omar Khan, MD, MHS serves as the chair of the APHA Section on International Health, and Tim Gibbs, MPH was elected the new Region 3 Affiliate Representative to the Governing Council (ARGC) representing not only Delaware, but also Pennsylvania, Maryland, the District of Columbia, Virginia, and West Virginia. These states compromise Region 3 of ten national regions.

Left to right: Erin Maughan, Director of Research at the national Association of School Nurses; Don and Jeanne Keister, founders of atTAcK Addiction; Tim Gibbs, Executive Director Academy/DPHA, and Kristen Tertzakian, Assistant Director, Legacy for Health.

As the DPHA moves forward, we'll be bringing online a new program in January of 2016 - **Public Health Grand Rounds**. These grand rounds will be an hour in duration, and provide content for the public health professional and healthcare provider alike. If you have a topic you'd like to see covered in these grand rounds, or in the Delaware Journal of Public Health, please **email us**.

The following is a list of presentations conducted by Delaware public health and healthcare professionals. If we have missed anyone's presentation or have an incorrect affiliation, please contact ehealy@delamed.org

American Lung Association of the Mid-Atlantic

- Making a difference in Delaware: State-level efforts at preventing youth tobacco use

Christiana Care Health System

- Innovations in prediabetes care: A collaboration of the AMA, Y and Family medicine practices
- Increasing value to medical practices and public health: Adding embedded registered dietitians and diabetes educators to improve team-based care
- Health Ambassadors: Essential Community Linkages to Promote Health Before, During and After Pregnancy
- Camp FRESH: An innovative approach to improving risk factors for at-risk adolescents
- Community Center of Excellence in Women's Health: A cross departmental, hospital based approach to community education & outreach to address women's health across the lifespan
- No Heart Left Behind: Successful delivery of mental, nutritional and cardiovascular health messages to both teens and adults
- Dance your Heart Out (DYHO): A "moving" hospital-led, community-based initiative to engage African American women in physical activity, health screenings and education to prevent heart disease
- Fresnel Water Purifier: A new method of water decontamination using a Fresnel lens
- Importance of Including Registered Nurses in Population-Focused Health Programs: The Healthy Beginnings Program
- Overview of International MCH: Emerging themes
- Improving the Health of Our Community: The Health Ambassador/ Health Guide Connection

Delaware Academy of Medicine and the Delaware Public Health Association

- Advocacy for Leaders: Affiliates in Action
- New Threats to youth tobacco prevention: bringing together partners from states, sections, and national groups

Left to right: Kathleen Crosby, BS, Patrick Quinlan, MD, Omar A. Khan, MD MHS FAAFP, Deborah Brown, MS, CHES, André Stanley, MPH

Delaware Department of Education

- Step Up Be Counted! Creating a core data set for school nursing

Delaware Department of Health and Social Services

- Premature Mortality Among Public Mental Health Clients Enrolled in Medicaid

Delaware Division of Public Health

- Building state capacity for health equity: A guide for health practitioners and partners

Delaware Health Sciences Alliance

- New threats to Youth Tobacco Prevention: bringing together partners from States, Sections and National Groups
- An Overview of Youth Tobacco Prevention
- Improving the Health of Our Community: The Health Ambassador/Health Guide Connection

Nemours Alfred I. DuPont Hospital for Children

- Wellness policies as a tool for addressing nutrition in early care and education settings
- Navigating the Health Care System for Adolescents
- Racial Heterogeneity in the Relationship between Social Hardship, Violence and Asthma Severity in Children: Multilevel Analysis using NSCH, 2012
- Racial and Ethnic Variances in the Relationship between Autism and Epilepsy in Children: Multilevel Analysis using NSCH, 2012
- Promoting positive health by addressing adverse childhood experiences: Advancing awareness, research, and translation into policy and practice

Nemours Foundation

- Navigating the Health Care System for Adolescents
- Improving Child Care Environments, Policy & Practice as a Childhood Obesity Prevention Strategy

University of Delaware

- Evaluation of the California FreshWorks Fund Initiative: What do store customers think about their new store?
- Continued food insecurity post-hurricane Katrina is associated with worse perceived disaster recovery, physical and mental health
- Factors associated with early exit of workforce among working age adults: a panel study
- Building state capacity for health equity guide: A guide for health practitioners and partners

CASE PRESENTATION:

Electronic Cigarettes and Adolescents

Jaclyn Limberakis, DO, MS; Christiana Care Family Medicine Residency, PGY-3

Clinical Pearls: Hazel T. Cook-Fasano, LCSW; Senior Clinical Social Worker, Christiana Care School Based Health Centers

Series Editor: Mary Stephens, MD, MPH, FAAFP

A 16 year old female with a past medical history of generalized anxiety disorder and depression presented to her school-based health center (SBHC) for individualized tobacco cessation counseling. During her intake visit with the SBHC social worker, the patient reported that she started smoking at age 14 and was currently smoking four cigarettes per day. She felt that she was addicted to tobacco and expressed a desire to quit. Her goals were to be healthier, gain confidence, join a sport and be able to exercise without getting short of breath.

Over the course of three months, the patient had six counseling sessions. At her third visit, she was down to one cigarette per day, but noted stress and anxiety as barriers to complete cessation. By her fifth visit, she was no longer smoking cigarettes and instead had switched to electronic cigarettes (e-cigarettes) because she thought vaping was safe.

The social worker seeing the patient did not find consistent, helpful information about e-cigarettes online, so she focused her counseling on the risks of nicotine exposure. At the patient's sixth visit, she complained of increasing anxiety and panic attacks. She was vaping several times a day in an effort to calm herself down; her e-cigarette use far exceeded her initial use of conventional cigarettes. She no longer wanted to quit because she saw vaping as giving her "the benefits of nicotine without the grossness of tobacco." This patient's case represents a growing trend in the adolescent population and one with which Family Medicine providers should familiarize themselves.

To read the entire article, please visit: http://bit.ly/1Mm6LSv

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RAISE

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WINTER INDOOR TRIATHLON

"RACE TO RAISE" FUNDRAISING CHALLENGE (OCT. 1 TO JAN. 8)
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CHASE CENTER + WILMINGTON, DELAWARE

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OTHER OPTIONS AVAILABLE ONLINE
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REGISTRATION CLOSES 1/4/16

THE INDOOR TRIATHLON EVENTS WILL BE RUN, ROW, BIKE (15 MINUTES EACH) WITH THE FARTHEST COMBINED DISTANCE WINNING. MEDLEY TRIATHLON TEAM MEMBERS WILL EACH COMPLETE ONE EVENT. RUN, ROW, BIKE TEAM AND INDIVIDUAL COMPETITORS WILL EACH COMPLETE EACH EVENT. EMAIL INFO@CHALLENGEDE.COM OR VISIT THE WEBSITE FOR MORE INFORMATION.

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THE DELAWARE CHARITY CHALLENGE is a centralized fundraising and athletic competition designed to give participating nonprofits and teams the ability to access all the benefits of participating in a fundraising event, such as a 5K, without incurring the same overhead costs and logistical headaches commonly associated with putting such an event together internally.

The result is that participating teams (and nonprofits) can concentrate their fundraising efforts in a fun and compelling way.
The Delaware Charity Challenge Winter Indoor Triathlon is scheduled for Saturday, January 9, 2016 at the Chase Center in Wilmington, Delaware.

For more information, visit
www.delawarecharitychallenge.com

THE PURSUIT OF HEALTH & WELLNESS EXPO seeks to become a premier annual event and is designed to help raise the bar for Delaware's and the Delaware Valley's health profile. At the Expo, representatives from many area businesses and nonprofit organizations will be on site to promote health awareness and showcase the opportunities and ways an individual and family can take responsibility for their health and wellness. Organizers expect a steady stream of participants to attend the Expo, including sports and fitness enthusiasts, athletes, youth, and other supporters of area nonprofits and businesses.

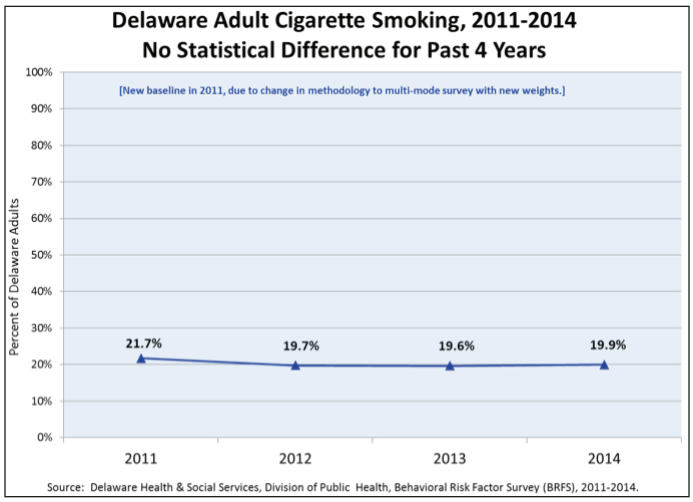
Organizations can register to sponsor or exhibit at the Expo. Space for exhibitors begins at $300 and sponsorships are available starting at $1,000. There are discounts for non-profit organizations and also for organizations participating in the Delaware Charity Challenge.

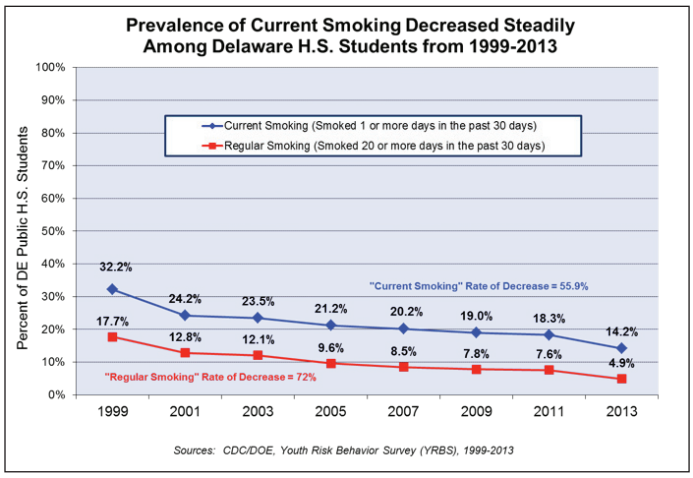
For more information, visit
www.dehealthfair.com

Tobacco Use in Delaware: Issues and Trends

by Fred Breukelman, CHES and Stephanie Belinske, MPH

During much of the past two decades, especially when the state's Tobacco Prevention and Control Program was adequately funded, smoking prevalence among adults and youth trended downward. Adult smoking prevalence decreased by about 24 percent — from 26 percent in 1991 to 19.8 percent in 2007. According to the adult Delaware Behavioral Risk Factor Survey (BRFS), the adult prevalence has leveled off since 1997; there has been no statistically significant difference in adult cigarette smoking for the past several years (see graph below).





Much of the emphasis of tobacco prevention efforts has been on preventing smoking initiation among teens. The Youth Risk Behavior Survey (YRBS), conducted every other year in Delaware public high schools, shows successful reduction in tobacco use initiation by high school students (see graph at right). "Current smoking" among high school students decreased by nearly 56 percent from 1999 (when the YRBS was initiated) to 2013.

Current smoking (the blue trend line) is defined in the YRBS as smoking during the past 30 days. The red line shows "regular smoking," which means the respondent smoked on 20 or more of the past 30 days.

Adult Tobacco Use

In 2014, 14.7 percent of Delaware adults reported they are every-day smokers. Another 5.2 percent of adults said they are some-day smokers, which may mean they are either starting to smoke and are not yet addicted or they are trying to quit smoking. In 2014, 55.5 percent of adults report they have never smoked – the highest "never smoked" prevalence in the 25-year history of the Delaware BRFS. Former smokers comprise 24.6 percent of the adult population in the state.

A majority of smokers said they have tried to quit. During the past year, 59.3 percent of adult cigarette smokers say they stopped smoking for a day or more because they were trying to quit.

To look at smoking prevalence in smaller areas, the BRFS aggregated two years (2013-14) of data and three Zip Codes from center city Wilmington. Table 1 (below) shows the smoking prevalence by county and Wilmington:

Table 1: Current Smoking Prevalence by Region

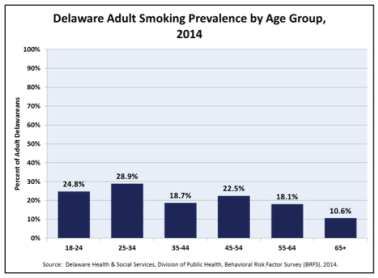
	Statewide	Wilmington	Suburban NC County	Kent County	Sussex County
Current Smokers	19.7%	30.5%	17.1%	21.1%	20.3%

Source: Delaware Health and Social Services, Division of Public Health, Behavioral Risk Factor Survey (BRFS), 2013-2014.

Wilmington residents reported the highest prevalence of cigarette smoking, followed by Kent and Sussex Counties; while Suburban New Castle County has the lowest smoking prevalence.

Other populations are notably at higher risk for smoking:

- 23.5 percent of adult men smoke, compared to 16.6 percent of adult women.
- The highest smoking prevalence by age is among 25 to 34 year old adults (see graph below). Smoking prevalence has dropped among young adults 18-24, as high school students, now smoking at lower rates, have moved into the adult population. Currently, 24.8 percent of young adults report smoking cigarettes.
- The highest smoking prevalence (greater than 40 percent) is among adults with incomes under $15,000 a year, and among adults with less than a high school education. While 24.4 percent of high school graduates are smokers, only 9 percent of college graduates smoke.
- Adults who report poor mental health (39.2 percent) smoke more than adults who report mostly good mental health (17.3 percent).
- Smoking is also higher among adults with disabilities (28.4 percent) than among adults who do not have any disabilities (17.2 percent).
- 34.3 percent of adults who report being lesbian, gay or bisexual (LGB) smoke, compared to 19.5 percent of heterosexual adults who report smoking.



New tobacco products and changing patterns of tobacco use make it necessary to look at more than just cigarette smoking. Other tobacco products include smokeless tobacco (chewing tobacco, snuff and snus), cigars and little cigars, pipes (including water pipes and hookahs), and electronic or e-cigarettes. While 19.9 percent of Delaware adults smoke cigarettes, the total tobacco use prevalence goes up to 26.9 percent of adults when these other forms of tobacco are included.

High School Tobacco Data

Most of the data on high school tobacco use comes from the YRBS, conducted in public high schools in odd-numbered years. The latest data, below, are from the 2013 survey; 2015 data will be available in 2016.

The demographics of students at greatest risk for tobacco use largely mirror the adult population. One notable exception is smoking prevalence by race or ethnicity. Significantly more non-Hispanic white high school students (19.3 percent) smoke than do African American students (6.8 percent) or Hispanic/Latino students (11.9 percent). Among adults, there is no statistically significant difference for cigarette smoking by among whites, African Americans or Hispanics.

Smoking does increase with age and grade level. While only 12.2 percent of high school freshmen report current smoking, the prevalence increases to 21.2 percent of seniors. This is close to the 24.8 percent prevalence among young adults 18-24.

As with adults, students who identify as gay, lesbian or bisexual have a higher smoking prevalence (21.8 percent) than heterosexual students (13.7 percent), according to the YRBS.

Disabilities and mental health also are related to tobacco use. Among students with emotional or learning disabilities, 27.4 percent smoke, compared to only 13.4 percent of students without those disabilities. About 18.5 percent of students with physical disabilities reports smoking, compared with 14.4 percent of students without physical disabilities (YRBS).

Little cigars or cigarillos appear to be gaining in popularity among high school students, perhaps because they're cheaper (lower taxes) and can be purchased in smaller packs. During 2013, 12 percent of public high school students reported smoking little cigars. Smokeless tobacco use among students has doubled in the past decade, from 3.4 percent in 2003 to 7.1 percent in 2013 (YRBS).

Another survey conducted for the Division of Public Health, the Youth Tobacco Survey (YTS), is conducted in even-numbered years when the YRBS is not being administered. According to the YTS data, the prevalence of students who have tried e-cigarettes more than doubled from 6.3 percent in 2012 to 14.3 percent in 2014. Current use of e-cigarettes also doubled—from 2.1 percent in 2012 to 5.6 percent in 2014.

As with adults, total tobacco use is higher than current cigarette smoking. While 14.2 percent of public high school students smoke cigarettes, the prevalence for total tobacco use (i.e. cigarettes, cigars, and other tobacco products) is 20.3 percent. Like cigarette use, the trend for total tobacco use is downward, from a high of 26.6 percent in 2003.

Conclusions

While the data clearly show success with prevention of cigarette smoking among high school students, tobacco addiction remains a serious public health problem in Delaware – as it does in the nation. Tobacco use is still the leading cause of premature death and disability in the nation. The 2014 U.S. Surgeon General's report on tobacco, *The Health Consequences of Smoking – 50 Years of Progress*, points out that "comprehensive tobacco control programs and policies have been proven effective for controlling tobacco use. Further gains can be made with the full, forceful, and sustained use of these measures."[i]

Data from the BRFS and YRBS will and should inform comprehensive tobacco prevention and control efforts in Delaware. These data suggest topics and audiences which the programs should reach. Clearly, as more evidence mounts about e-cigarettes and usage increases, policies and educational programs will need to address these new tobacco industry products. Low income and low-education populations are at greater risk for tobacco use, as are LGB Delawareans, and those with mental health problems and mental or physical disabilities. Prevention and cessation efforts need to continue to reach out to these populations with appropriate and culturally sensitive messages. Segmenting and targeting prevention efforts, while justified as best practices, create additional costs and will require the state's comprehensive tobacco prevention and control program to be well funded.

Fred Breukelman is director of health education for the Delaware Division of Public Health, and is the coordinator for the Behavioral Risk Factor Survey and the Youth Risk Behavior Survey.

Stephanie Belinske, MPH, is a chronic disease epidemiologist for the Delaware Division of Public.

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i U.S. Department of Health and Human Services. The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.

Data Sources:

All data in this article are from three surveys conducted for the Delaware Department of Health and Social Services, Division of Public Health – the Delaware Behavioral Risk Factor Survey, the Delaware Youth Risk Behavior Survey, and the Youth Tobacco Survey.

AMERICAN LUNG ASSOCIATION®

Delaware Youth Programs:

The Kick Butts Generation's vision is for all Delaware youth to be tobacco and nicotine free. Our mission is to protect Delaware youth from all tobacco and nicotine products, through education, prevention and cessation. In 1999, 13 teens received training in the Teens Against Tobacco Use (TATU) program and decided they wanted to do more about tobacco prevention and control for youth in Delaware. Since then, we've grown from 13 to 12,000 members! (Credit also goes to the Delaware Division of Public Health's Tobacco Prevention Youth Contract. Funding for the contract is provided by the Delaware Health Fund)

N-O-T, the Not-On-Tobacco program, enables teens to overcome addiction to tobacco in a safe, non-judgmental environment. If you're ready to quit smoking, or know someone else who is ready to quit, N-O-T is for you. N-O-T is designed to be a voluntary, non-punitive program for teens who want to quit smoking. It addresses healthy lifestyle behaviors such as tobacco use, exercise and nutrition.

Teens Against Tobacco Use. Become a teen educator and role model for hundreds of younger children.

BIAS - Being Informed About Smokeless Tobacco - is a KBG program focused on educating teens about the dangers of other tobacco products, such as chewing tobacco, snuff, and new products like dissolvable tobacco orbs, strips and sticks.

Anti-Ash Brigade - Helping kids in grades K6 to stay tobacco free! The AAB is a fun, educational anti-tobacco movement for Delaware children.

Asthma Camps in Delaware: Asthma camps are organized and staffed by highly trained medical professionals, including specialists, physicians, nurses, and respiratory therapists to ensure the campers' asthma is well managed during camp through taking their medication and removing or managing asthma triggers

Lung Cancer Basics:

Lung Cancer Toolkit: The worksheets in the toolkit can help you stay organized during lung cancer treatment. You can work with your doctor or loved ones to complete these worksheets and use them to help guide your conversations about lung cancer.

Learn more >

COPD: COPD is the third leading cause of death in the US. It causes serious long-term disability and early death. At this time there is no cure for COPD. More than 11 million people are known to have COPD and up to 24 million may have the disease due to some not even knowing it. The number of people dying from COPD is growing. Deaths due to COPD in women are higher than in men.

Learn more >

State of the Air: The State of the Air 2015 report looks at levels of ozone and particle pollution found in official monitoring sites across the United States in 2011, 2012, and 2013.

Learn more >

Healthy Air: Air pollution poses a serious threat to our nation's health. At the American Lung Association, we work to ensure that the air you breathe is clean and safe. Learn more about how polluted air can make you sick and how we are fighting to keep our air and nation healthy.

Learn more >

State of Tobacco Control: Tobacco use remains the leading cause of preventable death and disease in the United States. To address this enormous toll, the American Lung Association and its partners have committed to three bold goals:

1. Reduce smoking rates, currently at about 18 percent, to less than 10 percent by 2024;
2. Protect all Americans from secondhand smoke by 2019; and
3. Ultimately eliminate the death and disease caused by tobacco use.

The American Lung Association in Delaware recognizes that these bold goals will only be met in Delaware if these following three actions are taken by our elected officials:

1. Increase the cigarette excise tax by $1.00 per pack;
2. Create parity between the tax on cigarettes and other tobacco products; and
3. Fund tobacco prevention and cessation programs at the CDC-Recommended level.

Learn more >

Freedom From Smoking® Online, or FFS Online, is a program specifically designed for adults, like you, who want to quit smoking. It's an adaptation of the American Lung Association's gold standard, group clinic that has helped thousands of smokers to quit for good.

Learn more >

From the History and Archives Collection

Rene Laennec
(1781-1826)

A French physician, Rene Laennec of Quimpec (1781-1826) set the medical profession on its ear with the invention of the stethoscope. In 1816, the 35 year old physician was examining young women with baffling heart problems. She was stout and well endowed and he was embarrassed at putting his ear to the bosom of his female patient. He recalled the childhood trick of scratching the end of a log with a pen. The sound transmitted loud and clear.

Laennec made a laminated "log" by rolling 24 sheets of writing paper into a compact cylinder. In his words he "….applied one end of it to the region of the heart and the other to my ear, and was a little surprised and pleased to find that I could thereby perceive the action of the heart in a manner much more clear and distinct than I had ever been able to do by the immediate application of the ear." In addition, the young lady's modesty remained intact.

This success was followed by a solid wood cylinder. Further experiments produced a tube with a drilled center.

In 1819 Laennec published his, "On Mediate Auscultation-classification of all cardiac and respiratory sound." Many of the old guard, unable to sort out the rumbles, wheezes, and murmurs of the stethoscope, defended the ear-on-chest method. But in spite of such obstructionists, the stethoscope had become the badge of the progressive physician by 1820.

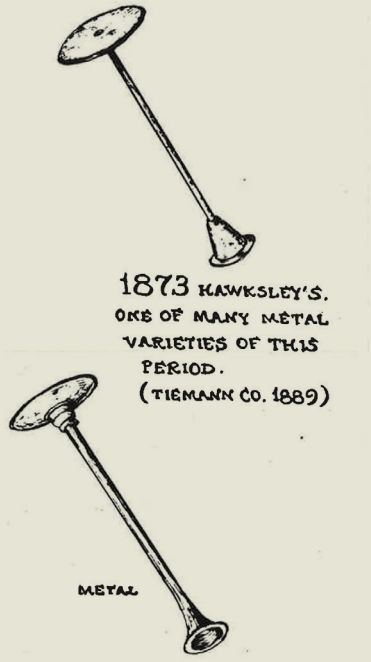
The London Medical Journal of 1827-1828, reported that there were physicians who jumped on the stethoscope bandwagon for the sake of appearances. One such, placed the wrong end of the stethoscope to his ear while holding the opposite end against the patient's chest. He reported a respiratory murmur which turned out to be the rattle of a hackney coach passing on the street below.

In 1837, Oliver Wendell Holmes returned from his Paris studies and wrote a plea to his countrymen for a wider use of the stethoscope for direct exploration of the chest. By 1850 there were relatively few who were not using the monaural instrument in office diagnosis.

There were many preferences for this new "mediate" auscultation. Some favored a solid turned cylinder, but most felt a hollow stethoscope allowed both wood and air to vibrate. Austin Flint, the most knowledgeable nineteenth century cardiologist, felt that wood did not conduct sound as well as metal or glass, but was lighter to use. He recommended the straight-fiber ebony and cedar. The latter, as well as pine, did not feel cold on the skin and were preferred by patients. These woods were less easily broken.

Other woods included cherry or other fruitwood, mahogany and boxwood. Pewter, brass, silver, gutta percha and even papier mache were fashioned into monaural. Ivory was a handsome medium, but its poor sound-conduction qualities relegated it to such as ear and chest pieces.

By 1840, American physicians and the monaural stethoscopes were no longer strangers, but it was generally felt that the ear to the chest served the purpose as well. By the 1850's the stethoscope had become a mainstay of the physical examination. Countless styles and shapes were introduces in the last half of the nineteenth century, and most were advertised in the United States up to the First World War. But our physicians turned a deaf ear on the monaural in the 1860's when Cammann's binaural stethoscope made it obsolete.



The Delaware Academy of Medicine has a number of stethoscopes, and images, books, and journals chronicling the importance of this simple diagnostic tool which revolutionized the practice of medicine by allowing the physician to listen to the lungs, heart, digestive tract, and during pregnancy. Before the stethoscope, doctors listened by auscultation - listening by placing the ear on a patient's chest.

The public health benefit of being able to listen to the patient's body with accuracy and precision was a significant step forward. However, stethoscopes are not without their detractors.Along with poor hand washing behaviors, they can act as a vector of transmission of antibiotic resistant microorganisms, especially troubling in nosocomial infections.

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