Despite the availability of a safe and cost-effective vaccine, measles is still one of the leading causes of death among young children according to the World Health Organization. From 2000-2013, measles vaccinations prevented an estimated 15.6 million deaths and the spread of the disease on a large scale. Despite the effectiveness of the vaccine, measles continues to spread. In January 2015, a measles outbreak at Disneyland launched a media frenzy as both pro-vaccine and anti-vaccine advocates alike reached out to discuss their side of the vaccination issue. Pro-vaccinators identify the vaccine as relatively safe and potentially life-saving, while those opposed cite potential side-effects, vaccine ingredients, and low prevalence of the disease being vaccinated against as some of the reasons to forgo the vaccine.

In the United States, 178 people from 17 states and the District of Columbia were reported to have measles. Seventy-four percent of these cases could be linked to the Disneyland outbreak. The high percentage of connected cases highlights how important individual vaccination is at a community level. For public health professionals, a vaccination may seem like an obvious choice, because why would an individual choose not to protect themselves, their family, and their community from a preventable disease? However, many individuals do not receive vaccinations. While he “does not fully understand it” Anthony Schlaff M.D., M.P.H., Professor of Public Health and Community Medicine and Director of the Public Health Program at Tufts University School of Medicine, attributes non-vaccination to several factors: the false complacency attributable to the fact that individuals often don’t experience the diseases and the harm that they can inflict upon the community. Other likely factors include skepticism of leaders and institutions and fearfulness of the vaccination process.

“Another way to think about fear of vaccines is to acknowledge two realities. One is that there can be side effects - rarely serious but the less serious ones are common enough that people know of them. Second is that some serious diseases, while not caused by vaccines, can be uncovered by them,” says Dr. Schlaff.

In recent years a high percentage of the U.S. population has received the measles vaccination. Approximately 90% of individuals were vaccinated in 2013. However, some vulnerable members of the population are unable to receive the measles vaccination, which means that it is even more important that individuals who can receive the vaccination do. In addition to the symptoms measles patients experienced, these individuals are also at higher risk of experiencing an ear infection, pneumonia, and encephalitis. However, it is possible to prevent individuals from contracting measles in the first place, and the CDC (Centers for Disease Control and Prevention) cites the MMR (measles) vaccination’s effectiveness as approximately 97%.

“The paradox of vaccines is that only by protecting all of us can we protect any one of us. People need to understand this, that they’re required to participate in vaccination not because we are a nanny state, but because it is our civic, and legal, obligation to each other,” explains Dr. Schlaff.

(Continued on page 4)
All politics aside, health care is probably the number one issue in our lives, particularly for those who have been marginalized in our society and wind up getting little or no preventative care. The Affordable Care Act seemed like an excellent way to fix this problem in the US. Unfortunately, politics (with a little help from some technological glitches) got in the way and now it has become one of those political footballs that gets kicked around and never seems to make it over the goal line.

When your chest hurts, or your 2 year-old child is running a high fever, or your grandmother has just taken a fall in her senior citizen housing, it seems like your health care team is just a phone call away. That may be the case for some but what if you are met with a recording on the other end of the phone that tells of a long wait time to see the doctor; or, perhaps, that the clinic is no longer accepting new patients; or your favorite pediatrician has retired; or they only accept patients with a certain type of insurance? Unfortunately, these are just a few scenarios that occur every day in this country.

As our population ages (and I am one of those) our demands on this system will continue to grow and these demands can already be seen pushing the system to its limits. Our economy’s share of health care spending is over 17% of the Gross Domestic Product (the highest in the world) according to the World Bank. Physicians are cutting back on services and hours as their reimbursements from government and private insurers are reduced. The cost to educate a physician in this country is estimated to be $30,000 - $90,000 per year for medical school alone. Tacking on a few years of residency training at a low annual wage leaves a newly minted physician only a few short decades of productive career time to pay off educational debt and build a retirement nest egg. What a life!

Finding an answer to our country’s health care woes is not easy. Honestly, treating advanced disease and fixing complex injuries are much more sexy and professionally interesting than preventing disease, helping people lead healthier lives, and treating minor problems before they escalate into big problems.

In trying to explain the benefits and intent of the physician assistant profession, I often use a very simple analogy: If you need a commercial airline pilot to fly an airliner from Boston to Chicago back and forth twice a day, is it necessary for that individual to go through NASA astronaut training and spend time on the International Space Station before he or she is allowed to fly the Chicago route?

Astronaut training is quite expensive and very long in duration. (Sound familiar?) The bottom line cost of that plane ticket will reflect that expense because it is ultimately passed on to the passenger. The same goes for healthcare.

The PA profession was not meant to be a temporary fix for a physician shortage or a cheap bandaid for healthcare for marginalized populations. We need clinicians who can step in to keep patients healthy and emphasize wellness in primary care and family medicine, particularly in medically underserved areas. We need clinicians to assist busy specialist physicians who are managing complex patient issues by putting more eyes on patients and more skilled hands at the bedside, making better use of the physician’s time, training and talents. In physician residency programs where work hours have been drastically reduced in the last decade, PAs make physician training more efficient by supplementing the residency workforce and providing a stable, baseline staff that doesn’t rotate every month.

The PA profession is now almost 50 years-old. There are now over 100,000 graduates of 190 accredited PA programs in this country. The profession has expanded to Canada, the United Kingdom, Netherlands, and South Africa.

If this country is to have truly affordable health care, we need to expand the physician-led team with capable clinicians. PAs are the perfect solution for the workforce expansion.

Richard Murphy, MBA, PA, AB

Director, Physician Assistant Program
Identifying High Opportunity Chronic Disease Patients

Kimberly Paull, MPH’15

Coastal Medical, a large primary care driven Accountable Care Organization (ACO), in Rhode Island, is different from many other healthcare providers. Over the last few years, more and more of their physician income is based on the quality of the health care they provide to patients. As an ACO, Coastal partners with insurers who reward its providers for keeping quality of care extremely high, and patients’ total health care costs – everything from blood tests to hip fracture repairs to prescription drugs – as low as possible.

To make the most of these agreements, to meaningfully improve the lives of its patients and to use its clinical resources wisely, Coastal needs to distinguish between three major groups of patients: the healthiest, who might just need annual check-ups; the patients who are catastrophically sick and will need high intensity management; and – most important and most difficult to identify – a middle group who may be heading down an expensive path to debilitating chronic illness but can be helped with thoughtful intervention.

I designed my Applied Learning Experience (ALE) to better identify this third group, patients we call Rising Risk. My goal was to develop a simple, replicable way for offices rather than a sophisticated analytics team – to name and track these patients. We chose to measure a concept developed by Dr. Judith Hibbard called patient activation because it strongly correlates with disease self-management, self-efficacy, confidence in tackling ambitious health changes, and fewer inpatient admissions and emergency room visits.

Rather than asking, ‘What’s the matter WITH you?’ we must ask, ‘What matters TO you?’ Coastal chose to measure patient activation because the company recognizes that patients are humans with complicated, unique, and individual circumstances – all of which affect their ability to maintain and improve their health.

The patient activation measure allowed us to identify patients that do not have the confidence to follow their treatments, who do not know how to ask their clinicians questions about their health, who do not understand what their prescriptions do, who do know when they can handle a problem themselves and when they need a doctor’s help. Knowing what social, emotional, and circumstantial barriers a patient faces helps our clinicians know how to tailor treatment - whether, for example, a patient would benefit from motivational interviewing, weekly telephonic diabetes management, or clear, reassuring instructions on how to manage periods of breathlessness for patients with Chronic Obstructive Pulmonary Disorder (COPD).

We conducted the study over a 4-week period in Fall 2014. Patients completed a 13-question, 1-page Patient Activation Measure (PAM) survey and we then compared their PAM results to their chronic disease burden, their depression screening score, certain biomarkers such as BMI, hemoglobin A1C (HbA1C) for diabetics, blood pressure, LDL cholesterol, and their number of inpatient admissions and visits to the ER, and total cost of care.

We found that patients who answered “No” to at least one of the questions on the survey – indicating a lack of confidence in that particular domain – incurred $7,643 more in medical care, were more likely to be diabetic were more likely to be obese (BMI >30) and were more than twice as likely to screen positive for depression.

We also found that the presence of chronic disease and patient activation were correlated: patients with chronic disease were more likely to answer “No” at least once and patients with low engagement scores were more likely to have chronic illness.

We concluded that patient activation, as measured through Dr. Hibbard’s 13-question survey, is a reliable, low-cost way to roughly identify high-opportunity patients, particularly (Continued on page 7)
The measles vaccination outbreak and corresponding vaccination debate presents an opportunity for both medical and public health professionals to address the misconceptions and fears surrounding the vaccination process. By understanding the anti-vaccination argument, professionals can tailor clear and concise information and communicate the benefits of the vaccination. By increasing the number of individuals vaccinated, it’s possible to eliminate measles on a national scale.

Welcome New Faculty: Dominique Michaud, Sc.D.

In January 2015, the Department of Public Health and Community Medicine welcomed Dominique Michaud, Sc.D., Professor of Public Health and Community Medicine, to the faculty of Tufts University School of Medicine. She brings with her a wealth of teaching and research experience that’s sure to benefit both students and faculty.

Dr. Michaud attended the University of Pennsylvania where she received her Bachelor of Arts in Biological Basis of Behavior and Economics, and received her Sc.D. in Nutritional Epidemiology and Epidemiology from the Harvard School of Public Health (HSPH). Prior to joining the Tufts faculty, Dr. Michaud was a Professor of Epidemiology at Brown University School of Public Health and has held several other faculty appointments including Assistant Professor of Epidemiology at HSPH and was a Reader at the Division of Epidemiology and Public Health at the Imperial College in London. She also worked as an Epidemiologist at Brigham and Women’s Hospital.

After graduating from the University of Pennsylvania, Dr. Michaud worked on the Human Genome Project, specifically on identifying genes on chromosome 22. While working in a laboratory, Dr. Michaud realized that she didn’t want to spend her entire career in the lab, but was more interested in understanding the causes behind disease, and how they impact a population. Her epidemiology training at the HSPH allowed her to gain a deeper understanding of the population and prevention side of disease. Her specific area of interest is cancer epidemiology, and some of her current work focuses on trying to understand the roles that infection and inflammation play in the development of pancreatic cancer.

“Tufts has a diverse and talented faculty, and I’m looking forward to forming interdisciplinary collaborations with my colleagues,” says Dr. Michaud. “I’m interested in further contributing to the dynamic body of cancer research and stepping into research opportunities that allow me to look at the interaction between nutrition, immune response and cancer.”

Dr. Michaud is currently working on 2 National Institutes of Health (NIH) funded projects. For one research project, she is working to understand whether infection plays a role in pancreatic cancer by looking at the relationship between bacteria in the tissue, with the goal of trying to determine if there’s a link between bacteria that resides in the mouth and pancreatic cancer. Dr. Michaud’s second project involves determining if some people are more genetically susceptible and predisposed to developing brain tumors. As a result, Dr. Michaud is looking at expression data gathered from brain tissue and large databases.

Dr. Michaud lists her most recent publication, “Plasma Antibodies To Oral Bacteria and Risk of Pancreatic Cancer in a Large European Prospective Cohort Study” (Gut 2013;62:1764-70), as one of her most recent professional accomplishments. The study measured antibodies to oral bacteria and examined their association to the development of pancreatic cancer. She found that there is a higher risk of pancreatic cancer among people who have higher levels of antibodies. This study was the first study to find the association between antibodies and an increased risk of developing pancreatic cancer. “This study is interesting because it provides suggestive evidence that bacteria might be involved in the development of pancreatic cancer,” says Dr. Michaud.

As for future epidemiologists, Dr. Michaud advises current or potential students of epidemiology not to be discouraged by the state of research funding. “Students should think broadly about the public health application of research, and how their work can make a difference in the field. There are so many opportunities to make a difference in the prevention of the disease through epidemiological research.”

The Department of Public Health and Community Medicine is delighted to have Dr. Michaud join the faculty and is looking forward to the productive research collaborations she’ll form not only in the department, but with other departments at the medical school, university, and Tufts Medical Center.
Since I was a child growing up in Oklahoma, I knew that I wanted to make an impact in health,” says M.S. - Health Communication alumna, Tambra Raye Stevenson. Stevenson, founder of NativSol Kitchen, 2014 National Geographic Traveler of the Year, and nutrition policy advocate is passionate about building healthy communities through food policy and inspiring others to embrace heritage foods for their health.

Through NativSol Kitchen, an organization that develops cultural-based and faith-based wellness programs based on African foods and nutrition, Stevenson hopes to educate individuals on the importance of replacing the standard and often unhealthy American diet with healthy heritage-based foods. The community-based kitchen based in Washington D.C. emphasizes developing new kitchen traditions, building meals that are value-based, and viewing heritage foods in a new light, as medicine. “NativSol means coming back home to rediscover the joy of preparing meals that heal and the kitchen is a source of healing, love and memorable meals moments,” says Stevenson. At NativSol, participants learn how to value, preserve, and eat heritage foods by participating in world-class cooking classes and seminars led by nutrition experts.

In addition to her work at NativSol, Stevenson has joined PATH’s Maternal, Newborn, Child Health and Nutrition Team and will provide communication, technical, and administrative support for the Maximizing the Quality of Scaling Up Nutrition (MQSUN) project covering Africa and Asia funded by the Department for International Development (UK AID: United Kingdom Agency for International Development). She’ll be leading communications to advocate for high-level uptake of the MQSUN initiative among policymakers and international development practitioners related to nutrition-specific and nutrition-sensitive programs for mothers and children.

The 2014 National Geographic Traveler of the Year honor is something that Stevenson lists as one of her greatest professional and personal accomplishments. National Geographic Traveler “celebrates individuals who travel with passion and purpose, have an exceptional story to tell, and represent a style of travel, motivation, or method that can inform and inspire”. Stevenson attributes her selection to her commitment to following her authentic path: reconnecting to her heritage and promoting African heritage foods. Receiving the honor re-affirmed her purpose in following her authentic path and blazing a new trail within the field of heritage nutrition. As a National Geographic Traveler of the Year, Stevenson worked to inspire others to “shine their light and live their truth.”

In addition to being selected as a National Geographic Traveler of the Year, Stevenson has also been named Nutrition Hero 2014 by Food and Nutrition Magazine, DC Metro Area Dietetic Association’s Emerging Leader in Dietetics/ Cynthia A. Reeser Award, and received the Academy of Nutrition’s Dietetics Foundation Scholarship in 2012.

Prior to the formation of NativSol, she worked as a consultant for the CDC's (Centers for Disease Control and Prevention) Office of Global Health, a public affairs specialist for the U.S. Department of Commerce’s Minority Business Development Agency, and is the founder and director of Creative Causes, Inc. and currently holds several professional civic service positions.

Stevenson credits her achievements to a formula she created when she was growing up: F^2P^2: faith, focus, prioritize, and patience. In many ways, this formula reflects how she’s gotten to this point in her career. However, the formula has evolved to include authenticity following the grief counseling Stevenson participated in following her father’s death in 2007. By adding authenticity to her formula for success, she’s found depth in her process by cultivating her spiritual life and practicing yoga, and hasn’t looked back since.

As an alumnus of the Tufts Health Communication Program, Stevenson credits the Public Health and Professional Degree Programs emphasis on community and application—(Continued on page 8)
New PHPD Volunteer Program

The Greater Boston Food Bank (GBFB) was an organization selected for its work on addressing food insecurity issues in Boston. In early March, a group of 16 students, staff and faculty visited GBFB for an afternoon of sorting incoming donations. Doina Iliescu, Assistant Director of Career Services, one of the volunteers, had a great time. “I loved the opportunity to volunteer with our students at the GBFB. The work was very rewarding, and it was a great opportunity for everyone to get to know each other better and to interact with students and professionals from other organizations, who were also volunteering that day. Together, we made 7,194 meals possible by sorting 8,633 pounds of food for people in need in eastern Massachusetts. That’s a good day’s work, and a lot of muscle building when you’re sorting through 50 lb. pound boxes of cantaloupes,” she said. Next on the schedule will be a group activity at Boston Healthcare for the Homeless, an organization with a mission to provide or assure access to the highest quality health care for all homeless men, women and children in the greater Boston area.”

The PHPD is also in the process of establishing a long-term partnership with the Boston Chinatown Neighborhood Center (BCNC), a nearby nonprofit with 75 staff that support over 2,000 Chinatown community members through family and community engagement, offering childcare and educational programs for both youth and adult learners. In addition to ongoing tutoring and mentoring opportunities, be on the lookout for additional ways to become involved with the BCNC and/or the PHPD Volunteer Program. If you have any questions about the program, contact Cynthia Dantas, Director of Career Services at cynthia.dantas@tufts.edu.

Identifying High Opportunity Chronic Disease Patients

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those with chronic diseases. Practices can use the information to frame interventions in ways that meet the patient where they are. Importantly, Dr. Hibbard’s research shows that activation is coachable in patients, but it requires a shift away from the “compliance” model of health care. As our Chief Medical Officer, Dr. Edward McGookin said, rather than asking ‘What is the matter WITH you’, we must ask ‘What matters TO you?’.

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Alumni Spotlight: Tambra Raye Stevenson, MS ‘04

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Based approach to change for impacting her health communication training. She credits the combination of her nutrition research background with her health communication education from Tufts to leading her towards advocacy and food policy. “Whether it was in the community or in the halls of government, creating change in communities begins with changing policy and implementing programs to reflect it,” she says.

In the future, Stevenson hopes to increase the awareness of the nutritional and culinary value of African heritage foods and increase the pipeline of people of African descent pursuing studies in food, nutrition, dietetics, and agriculture. She plans to continue working on nutrition issues domestically, by addressing disparities in her role as Chair of the NAACP Washington D.C. Branch’s Health Committee. Internationally, Stevenson plans to bring awareness and action in preserving African heritage foods, encourage more people to study and practice nutrition, and address the nutrition transition issue in communities throughout the world.

As for future health communicators, Stevenson’s advice echoes the same passionate and grounded attitude she practices in her daily work. “Have your communication reflect your truth. Be authentic in the messaging. Speak from the heart, not the head in changing behavior.”

To learn more about Tambra Stevenson and NativSol Kitchen go to https://www.facebook.com/NativSol.

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