## Anne Snowdon

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Mark Marcelle: This is conversations on healthcare. I'm Mark Marcelle.

Margret Flinter: And I'm Margaret Flinter.

Mark Marcelle: Well Margaret we see that the House of Representatives Speaker Paul Ryan has announced that he's not seeking re-election this year; seems to be part of a larger trend. Both prominent Democrats and Republicans have announced they're not seeking re-election in 2018 and it may reflect a turning tide on the number of issues including healthcare.

Margret Flinter: And it's very interesting, because the GOP mantra has been pretty clear since the passage of the Affordable Care Act; repeal it or repeal and replace it. But, according to an analysis that's been done by the Washington Post, you would be hard pressed to find any wording now about repeal of Obama Care.

Mark Marcelle: Actions taken though by the White House though have diminished the infrastructure of the Affordable Care Act. The President announced work requirements might become the norm across the country for those seeking Medicaid. And states like Iowa and Idaho are seeking to create market exchange plans that don't cover the essential benefits.

Margret Flinter: Well the nations consumers are starting to register their concern for the loss of health coverage protections, and I think, consumers are starting to understand that the recent actions being taken by Congress are leading to higher premiums for those who get coverage on the individual market. I really don't ever recall so many incumbent candidates choosing not to seek re-election.

Mark Marcelle: It looks like we're reverting back to more of a patchwork quilt in terms of insurance coverage from state to state.

Margret Flinter: Even while we are concerned about and tracking all of these ongoing policy challenges, there are so many exciting innovations happening in the global health arena. And that brings us to our guest today, Dr.. Anne Snowdon, Chair of the World Health Innovation Network at the University of Windsor, Ontario. She is partnering with a number of countries around the world to share best practices in improving health care delivery, outcomes and costs. And she has a very interesting collaborations to talk about.

Mark Marcelle: And Laurie Robertson also checks in. She's the managing editor of factcheck.org. But no matter what the topic you can hear all of our shows by going to CHCRadio.com.

Margret Flinter: And as always if you have comments please e-mail us at CHCRadio@CHC1.com or find us on Facebook or Twitter, because we'd love to hear from you. Now we'll get to our interview with Dr.. Anne Snowden in just a moment.

Mark Marcelle: But first, here's our producer, Marion O'Hare, with this week's headlines.

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Marianne: I'm Marianne O'Hare with the healthcare headlines. Amazon may be rethinking its entry into the drug business. According to reports, Amazon announced it was pulling out a plan to sell drugs in bulk to large hospitals through their Amazon business platform. Amazon's biggest hurdle reportedly was many large hospital organizations refusing to give up their existing partnerships with pharmaceutical distributors. Amazon recently announced a partnership with Berkshire Hathaway and J.P. Morgan Chase to form an entity aimed at bringing down the high cost of American healthcare.

Meanwhile drug rehab is becoming a big business for an extremely vulnerable population in need of treatment. Google had suspended ads last year for drug treatment facilities after it was found many fraudulent entities were utilizing the platform to market. Google is allowing the lucrative ads back on the platform, but only after entities have been thoroughly vetted by an independent analyst. Legit Script will evaluate treatment providers on a number of criteria including criminal background checks and license and insurance verification. Addiction experts feel it's a good measure to put bad actors on notice, and ensure that families seeking help will get the help they need.

Ebola may have a new weapon. Deadly pandemic swept through several West African nations a few years ago leaving a trail of death and fear. According to a recently published study a vaccine created by the pharmaceutical company Merck seems to show long term protective effects from the virus. Those who were given the experimental vaccine continued to show antibodies up to two years after injection. They're encouraged they have, what seems to be, a viable way to protect researchers and scientists studying the pathogen. First line global health responders like Doctors Without Borders and community members living near where an outbreak might have occurred.

I'm Marianne O'Hare with these health care headlines.

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Mark Marcelle: We're speaking today with Dr.. Anne Snowdon, Scientific Director and C.E.O. of supply chain advancement network. Scan Health, a Canadian network of centers of excellence in international knowledge and translation platforms. She is chair and professor of the World Health Innovation Network WIN at the University of Windsor Ontario. Dr.. Snowdon was recently inducted into the American Academy of nursing. She earned her bachelors of science and nursing at the University of Western Ontario, her Masters of Science at McGill University in Montreal, and Per Ph D. in nursing at the University of Michigan. Dr.. Snowden, welcome to conversations on health care.

Dr. Anne Snowdon: Thank you so much.

Mark Marcelle: At Scan Health you've been focusing on advancing supply chain capacity in global health. Designing systems that will help clinicians better assess the maturity of their supply chain infrastructure. I'm wondering if you could help our listeners understand why supply chain improvement is so vital to improving care delivery and outcomes; something all of us are seeking to achieve.

Dr. Anne Snowdon: Every health care system in the world is challenged by delivering the best possible care to every population they serve. Products that we use in care, come from all over the

world; global national companies and local companies in each country. Here's the challenge we don't have this system infrastructure that allows us to really critically understand what are the best outcomes for patients? How are we achieving them? With what products? So a company that makes pacemakers, recalls a pacemaker because it's not functioning well.

Today in global health systems we are not able to quickly and easily identify exactly which patients got that particular lot and batch number of pacemaker, and how do we contact to make sure we can reduce any risks they may now be facing?

Margret Flinter: Well Dr.. Snowdon, I understand that at the recent and huge health information management system society conference in Las Vegas, also known as him HIMS.

Dr. Anne Snowdon: Yeah.

Margret Flinter: CEO Howe Wolfe announced that they were partnering with your organization, Scan Health in the development of this clinical tool that you've created as Scan called the H-sim. This is a clinical tool I understand that you're developing. Tell our listeners about that.

Dr. Anne Snowdon: So we at the Scan Health have designed and created this health supply chain maturity tool which essentially helps organizations identify how far advanced is your supply chain. HIMS a phenomenal partner in terms of being able to reach seventy three thousand partners across multiple countries globally, so they are really playing the role of helping build awareness and knowledge among health information management. Supply chain infrastructure and health systems is all about creating that data in our health system to track and trace every patient, every product, and every outcome were achieving.

Mark Marcelle: Dr. Snowdon we had the opportunity of having Dr. Peter Pronovost on our show talked about medical errors noting that there are the third leading cause of death in North America. You say that building the highly visible health care system is central to mitigating this real feeling in modern health care. How do we create a more responsive system capable of reducing harm and health care, and even with checklists and team huddles we still have errors and what's missing?

Dr. Anne Snowdon: When you think about error in our health systems, you know, we have adverse events that get voluntarily reported by clinician teams. And then we work with families to try and make sure that those errors never happen again. If we don't have the supply chain infrastructure in our systems to create the double checks for our clinician to prevent errors, then I'm not sure that we're going to overcome this very, very significant level of error.

As a nurse I used to give out medications to my patients in hospital. The patient may have six or eight medications. Most nurses have six to eight patients they are caring for. Think about barcode scanning like we use in the grocery store. You scan that patient's identification, and the system automatically tells me with a great big green checkmark that's the right dose, right patient, right drug, right route; all those things automatically. So supply chain infrastructure creates those double checks. It tells me if it's the wrong medication before I give that drug and prevents that error. If I'm taking a patient into an

operating room, and I have barcode scanned that patients ID band and it makes sure that we've got that right patient going into the right operating room to receive the correct surgery.

So supply chain infrastructure creates those double checks in the systems for clinicians, and in the house systems I've already studied that have gone down this road they are reporting significant drop in very serious medical errors called 'never events' upwards of seventy percent.

Margret Flinter: Well Dr. Snowdon your early experience was as an emergency department nurse in Canada and you saw so many children entering the emergency room with serious injuries from car accidents. You partnered with the auto industry to devise a better more effective booster seat. And then, I understand, sort of took all of that learning and focused your attention on all sorts of challenges within the health care system.

Tell us a little bit about this trajectory from frontline nurse to innovator, and, and what are your thoughts on how we better leverage the unique clinical experiences of nurses to help in Inform and advance this innovation process?

Dr. Anne Snowdon: You know, clinicians have the advantage of seeing patterns over time. So in emergency room, I saw one after another after another of these children coming in with these terrible injuries, so we have the ability to know what are the challenges the health systems desperately need to solve. So it we often think about innovation as a new technology, a new software, a new app, and I don't see clinicians front and center on how those new technologies are actually designed so that we are absolutely sure they work in those clinical settings. So in the supply chain infrastructure a simple scan of a barcode is really quick and easy for a clinician. Clinicians have far more time to spend with their patients when we automate those environments. Innovation teams need to absolutely put clinicians front and center because they're the only group in health systems that have a very clear sense of what are the big challenges we need to overcome? And how innovative tool technologies needs to work in clinical settings? So it makes it easy for clinicians to use those new innovations. And to when clinicians are not involved in innovative projects it usually fails, so in my research, but also in my experience, clinicians have a very, very key leadership role to play.

Mark Marcelle: We're speaking today with Dr. Anne Snowdon, scientific director and C.E.O. of Scan Health. She is also chair and professor of the World Health Innovation Network at the University of Windsor. Dr. Snowdon, United States unfortunately has one of the most expensive health systems in the world and yet we see that cost of health care and public systems such as Canada and elsewhere are rising at unsustainable rates. And you just returned from a meeting with your collaborators in Australia. A country with a public health system similar to Canada's. And yet you've noted that they seem to be doing a much better job with outcomes and lower costs. What might we learn from the Australian example? What can other countries get right from their example?

Dr. Anne Snowdon: They are spending almost half of what Canada's spending per capita on health systems, and yet their performance outcomes and quality safety and access to care are better than ours; quite frankly. They have a national digital strategy that is funded by their federal government, so they have a very focused set of resorts is on how do we make sure all health systems linked together to

inform patients? They're about to launch an national patient portal. Meaning every Australian citizen can go online, download and pull all of their health records to help them better understand their care and to help inform their decisions. I don't know of another country that's been able to achieve that nationally, but the value of that opportunity is very, very significant.

The other thing Australia does is a wonderful job of highly integrated care. I visited a children's hospital where the experts on children's health were looking after children, not just in the hospital setting when they become ill, but in their homes, in the community. So wherever children are, they had a great line of sight to what support they needed and where they could add value for children and in their homes. The third thing that Australia has that we don't have in Canada is twenty four seven primary care services.

So no matter where you live and when you happen to get ill, you can reach a primary care provider or team twenty four hours a day seven days a week. In our country in Canada, if you become ill on weekends after hours then you're pretty much have to rely on either an emergency room or maybe a walk in clinic if it's open, and that's been a real challenge for us. So if it's not available to citizens around the clock, then it's not as strong as a system in terms of helping people stay healthy and well. And making sure they don't become so ill they require hospital care. So those are just the couple of the real key advantages I see in the Australian system.

Margret Flinter: You know, I'm curious what your thoughts are about what's the implication of the kind of work that you're doing for prevention and for population health? Particularly the management of chronic illness, how do we innovate for better prevention and better population health management?

Dr. Anne Snowdon: Recently, and in the last few years, but probably much more likely as we move forward we have this thing called precision medicine. Drug companies and new innovators are creating these very tailor made therapies for patients that have these very challenging illnesses. If we're not tracking in tracing which precision therapy or medicine is achieving value for which sectors of our population, then we won't know what the best care processes and therapies are for which groups of patients.

It's very clear today a new drug, or a new biologic, or a new therapy doesn't work exactly the same way in every person in our populations. Until we get to that point where we're tracking and tracing every therapy we're using with every patient, then we simply aren't going to know what's the best way to manage chronic illness outcomes. So prevention is critical, so we know what kind of risk factors there are for, you know, dementia and diabetes and heart disease. For example, keeping your blood pressure down.

If we identified population segments that were, you know, had a bit of average blood pressures. If we worked with them very early in that high blood pressure sort of trajectory, we would actually be able to reduce cardiovascular heart disease outcomes that we see far too commonly. And there is even evidence now that if you get manage blood pressure very, very well you'd reduce a large percentage of dementia. So the tracking and traceability needs to reach right across health system organizations right

into the community to identify what's working best for whom, and who are those groups of patients that we need to work with very early.

Mark Marcelle: Our private system, as you know in America, we are very much a public/private arrangement. And you've been trying to find that commercial and market solutions for the public Canadian health system, and taken some good natured flak from some Canadian colleagues for aligning the corporate entities to address some of the shortcomings within your system. But you say Canada needs to get over the private sector is a bad thing idea. And as you continue your collaborative work at the World Health Innovation Network what kind of high functioning health systems can be achieved by building and coalescing the successes together?

Dr. Anne Snowdon: We're one of the very few countries that doesn't have the alternative of that private health care system, and it's largely based on Canadians absolute passion that identity. We see ourselves as a country that health care must be available to all Canadians, but forty percent of health services in Canada are part of a private sector because the public system can't pay for absolutely all health services like, you know, dentistry or physio therapy.

I think, the high functioning health system and is well developed collaborative partnerships so that we engage the expertise of the private sector to help the public side and public system learn that public health system experts and leaders work closely with the private sectors to help them understand what are the real challenges? Really the ones we see day to day, one of the areas of work we're doing at the World Health Innovation Network is, processes around how the health systems procure innovation? Not procure products, but how do we go out to the market as a health system and say look we have some real challenges in this particular program.

Let's say cardiovascular health; go out to the market and procure their best solutions that could embed and scale across that system. And then work with us to make sure we have the best efficiency, the best productivity. So innovation procurement is actually a way for public systems like Canadian systems to engage industry to bring those solutions to us and share the risk and share the value when they do work. Not worrying so much about the privatization, but engaging private sector expertise to help us create much more high performing health systems. I'm not sure we're working as closely with them as we could be, and models like procuring innovation may be one way to do that.

Margret Flinter: We've been speaking today with Dr. Anne Snowdon, Scientific Director and C.E.O. of the supply chain advancement network or Scan Health and chair of the World Health Innovation Network at the University of Windsor Ontario. You can learn more about their work by going to scanhealth.ca or follow their work on Twitter at scan\_health. Dr. Snowden, thank you so much for your work and for joining us on conversations on health care today.

Dr. Anne Snowdon: Thank you ever so much it was an absolute pleasure.

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Mark Marcelle: The conversations in healthcare we want our audience to be truly in the know when it comes to the facts about health care reform and policy. Laurie Robertson is an award winning journalist and Managing Editor at factcheck.org; a nonpartisan, nonprofit consumer advocate for voters that aim to reduce the level of deception in U.S. politics. Laurie, what have you got for us this week?

L; We recently published our latest edition of what we called, Trump's Numbers. A quarterly look at how things have changed since President Trump took office. One statistical measure is the number of the uninsured. The number of people lacking health insurance has gone up somewhat under Trump though millions more are expected to drop or lose coverage next year and in subsequent years.

The most recent report from the National Health Interview Survey estimates that during the first nine months of last year, 28.9 million people were uninsured. That's an increase of only three hundred thousand from 2016 and still 19.7 million fewer than were uninsured in 2010 the year then President Obama signed the Affordable Care Act. More recent polling by the Gallup organization found a larger increase estimating that 3.2 million Americans entered the ranks of the uninsured in 2017.

Trump failed to repeal and replace the Affordable Care Act as he promised to do, but in December he signed a tax bill that will end the ACAs tax penalty for people who fail to obtain coverage; that mandate, as it's called, and in 2019. The number of people who signed up in December through the ACA exchanges for coverage in 2018 dropped only slightly to 11.8 million. That's down from 12.2 million in 2017 and 12.6 million in 2016, but ending the mandate penalty is expected to have a much bigger impact in coming years.

According to an estimate by the nonpartisan Congressional Budget Office, the end of the mandate next year will cause four million people to lose or drop coverage in 2019 rising to 12 million two years later and 13 million in 2025. CBO said that ending the mandate would cause policy premiums for those buying individual policies to rise ten percent in most years. Healthier people would be less likely to obtain insurance and the resulting increases in premiums would cause more people to not purchase insurance.

And that's my Fact Check for this week for more on various statistical measures of Trump's presidency, see our website. I'm Laurie Robertson Managing Editor of factcheck.org.

Margret Flinter: Factcheck.org is committed to factual accuracy from the country's major political players and is a project of the Annenberg Public Policy Center at the University of Pennsylvania. If you have a fact that you'd like checked, e-mail us at CHCRadio.com. We'll have factcheck.org's Laurie Robertson check it out for you here on Conversations on Healthcare.

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Mark Marcelle: Each week Conversations highlights a bright idea about how to make wellness a part of our communities and everyday lives. For all the people in the world without limbs, acquiring prosthetics can be costly and out of reach. It's especially challenging to make prosthetics for children since they are in a constant state of growth. Rochester Institute of Technology scientist, Dr. John Schule, stumbled

upon a clever and affordable solution. Provided online open source templates to anyone anywhere in the world who has access to a 3D printer and provide prosthetic hands for next to nothing.

Dr. Schule: I've made this Google Maps match up. If you have a 3D printer and you'd like to help, put yourself on the map. And if you know someone who needs a hand put yourself on this mapt.

Mark Marcelle: So he founded the E-Nable Network which has massed thousands of volunteer makers in upwards of forty countries around the world providing cheap, but functional prosthetics for Children In need.

Dr. Schule: I think we're currently pushing fifty eight hundred identified members in our Google plus community, and we have a followings in the thousands more. We know that we've delivered about eight hundred hands devices, and we suspect that is comparable number had been downloaded by people we can't track because we put all of our design on the Internet.

Mark Marcelle: The simple limb designs have become more sophisticated recipients of the prosthetic devices provide feedback for designers to make more efficient devices.

Dr. Schule: We're still working on opposable thumbs. These things grip or un-grip, so they're much less functional than our biological hands, but for kids it's huge. And, you know, our hands don't even pretend to look like regular hands. They look like superhero, Iron Man hands, and for that very reason they're very popular with kids.

Mark Marcelle: E-Nable, a global collaborative network of open source designs linking to makers with 3D printers to provide low cost prosthetic limbs to children and adults around the world. Now that's a bright idea.

Margret Flinter: This is conversations on healthcare. I'm Margret Flinter.

Mark Marcelle: And I'm Mark Marcelle, peace and health.

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