

# Taking on Tobacco: A Discussion with Dr. Andrew Pipe About His Career and the Ottawa Model for Smoking Cessation

Devon L. Johnstone, MSc<sup>1</sup>, Matthew W. Loranger, PhD<sup>1</sup>

<sup>1</sup>Faculty of Medicine, University of Ottawa



---

### ABSTRACT

---

Dr. Andrew Pipe is chief of the division of Prevention and Rehabilitation at the University of Ottawa Heart Institute and Professor in the Faculty of Medicine at the University of Ottawa. He completed his medical training at Queen's University, and interned at The Ottawa Hospital, beginning a career path which combined his interests in sports medicine, health promotion, and advocacy. He has been a physician for athletes at the international level, served on several sporting and anti-doping organizations, and is recognized as a leading expert on cardiovascular disease prevention, physical activity, and smoking cessation.

---

### RÉSUMÉ

---

Dr Andrew Pipe est professeur à la Faculté de médecine à l'Université d'Ottawa et il est également responsable de la division de prévention et de réhabilitation à l'Institut de cardiologie de l'Université d'Ottawa. Dr Pipe a terminé son éducation à l'Université de Queen's et son entraînement à l'Hôpital d'Ottawa où il a commencé sa carrière dans un domaine incluant la médecine sportive, la promotion de la santé et la défense des droits. Il a été médecin pour les athlètes au niveau international et il est reconnu comme un expert sur la prévention de maladies cardiovasculaires, sur l'activité physique, et sur la cessation du tabagisme.

---

### TELL US A BIT ABOUT YOURSELF, YOUR BACKGROUND IN HEALTHCARE, AND HOW YOU CAME TO BE IN YOUR CURRENT POSITION AS A CLINICIAN.

I grew up in England, and emigrated to rural Ontario with my family when I was 12. I went to Queen's University and began life as a student in honours politics. Halfway through, I became interested in medicine; I remember saying to myself that you can always be involved in politics as a physician, but you could never become involved in medicine as a political scientist.

As an athlete, I decided that I wanted to maintain a relationship with sport over my career, and I came under the influence of people in Ottawa during my internship at the Civic Hospital who cemented that. Following my internship, I practised medicine in a small mining community in Northern Ontario for three years. While there, the track at Laurentian University was one of only two synthetic tracks in Canada, and it became the site for all kinds of invitational track meets prior to the Montreal Olympics.

The local medical society recommended me to be the physician for meets, so I was able to maintain a relation with sport at a fairly high level.

I then decided to travel to Australia and Papua New Guinea for a couple of years. I kept letters of introduction from various sport organizations in my back pocket, and I used my interest in exercise physiology as an opportunity to combine my travels with medical practice.

Upon my return to Canada, I became involved with the Canadian Men's basketball team at the world championships in Manila, and I also served as the physician for the Canadian cross-country ski team in Scandinavia. I then began an orthopedic residency in Ottawa, because the conventional wisdom at the time was that if you had an interest in sport and wanted to practise medicine, orthopedics was the way to go. However, after a year I realized that this wasn't the career path I wanted to follow.

---

**Keywords:** Smoking cessation; Preventative medicine; Tobacco

## Interview

I was getting prepared to go back overseas to a third world country, when Willy Keon, who was the creator and head of the Heart Institute at the time, called me up and recruited me. During this time, I became involved in some anti-tobacco activities, as I was already sensitized to anti-tobacco issues as they related to sports sponsorship and so on.

One day, Willy called me up and asked me to finish cardiac surgery training, telling me that they'd arrange for me to get a fellowship elsewhere and then return to Ottawa. I thought about it for a couple of weeks and told him, "I'm probably the only guy in the world that would say this, but I don't think this would be right for me or for you, and I expect that you'd like me to probably pack my bags." To my surprise, he expected this, and offered me an academic appointment to keep up my work on physical activity, sport issues, and particularly the anti-tobacco stuff because of its consistency with the values of the Heart Institute.

Over the course of my 35 or so years at the Heart Institute, I've had an amazing array of involvements and opportunities: I ran the artificial valve clinic, catalyzed issues related to community health promotion and physical activity issues, and others. About 13 years ago, I was asked if I could take over as the chief of division of Prevention and Rehabilitation.

I look back and sometimes I have to pinch myself. I will be going to my 12th Olympics in Rio, for example. I've been involved in a whole array of anti-doping issues internationally and served on several international sport organizations in a consulting role on issues that relate to sports medicine, or anti-doping programs. I've also had a wonderful series of clinical adventures, but probably the most important work that I've done has been to do with issues that relate to tobacco control and smoking cessation.

### **WHAT TRIGGERED YOUR INVOLVEMENT WITH SMOKING CESSATION ADVOCACY?**

As a medical student I remember thinking that, given what we knew about the consequences of tobacco, it made no sense that smoking and tobacco products were dealt with in our community the way they were. As a jock, I thought that smoking was a crazy behavior that interfered with physical performance. I remember that people's eyebrows would raise when I said that my apartment in the intern's residence was going to be smoke free, because nobody did that sort of thing at the time. When I was in general practice, I immediately became aware of the problems posed on a daily basis by patients who were smokers and, as we now know, addicted to nicotine. I think I was always kind of aghast and disappointed that the medical community and, in particular, many of the major health organizations in those days had done nothing to address this problem.

I had this one very significant experience; I got asked by one of my patients to see her husband. He was a contract driller, which meant he was off in the middle of the bush, drilling for sometimes a couple of months at a time. She got a message that he'd had this bad cold and was on antibiotics, and wasn't getting any better. He had a couple of episodes of hemoptysis, we did a chest X-ray, and blatant was this lung tumour. I made the appropriate referrals, but long story short, inoperable, palliative care.

One day I said to his wife, "We both realize the nature of the situation in terms of your husband's condition, and I think it's important, and please forgive me for asking this, but do you have a will?" The answer was no, and I explained, "Well, in the absence of a will, and particularly if he dies suddenly, there are going to be some challenges, so I really think it's important that you get one." A few days later, she had the will, and asked me to witness it for her. I said, "A physician should not be witnessing the wills for the patients they're caring for, for various obvious reasons, but I'll see if I can get someone to help you." I asked the nurse if she could help and I assured her that I would personally back her, and that there would be boxcars of lawyers that would come to her defense if necessary. She agreed to witness, and soon after I went back into the room. The children were there, the wife was there, and I bet you it wasn't ten minutes later, the patient vomited. His tumour must have eroded into his pulmonary artery, and he exsanguinated before our eyes into his bed. It was just the most horrific thing that one could ever see or experience and a horrible thing for family and children to have to see. I remember thinking, "Those bastards in the tobacco industry are responsible for this, and somebody should do something about that." Those words came to resonate often in the years to come, because whenever you find yourself thinking, "They should do something about it," it immediately removes yourself from consideration as being part of a solution to a problem. Here's where I think my political science background came in; I became determined that if there were opportunities for advocacy, I would act upon them. That led me into a bunch of adventures both in sport and other areas of tobacco control.

### **COULD YOU TELL US A BIT ABOUT HOW THE OTTAWA MODEL FOR SMOKING CESSATION EVOLVED?**

When I first took my current position, I began to look at what we were doing for smoking cessation at the Heart Institute. One day, somebody said, "You know, on floors 2, 3 and 4, we see 2,500 patients a year who are smokers, what are we doing with them?" We were all over people that were hypertensive, or dyslipidemic, or dysglycemic, or had diminished renal function; lights would flash, we'd fire multiple medications, and everyone would pat themselves on the back about what wonderful jobs they were doing in terms of managing these harbingers of future cardiovascular disease. Nobody was paying the slightest bit of attention

## Interview

to the fact that the monumental modifiable cardiovascular risk factor might be there.

So we set about developing a protocol that would very systematically identify and then provide assistance to patients who were smokers and then follow them up using some intriguing kinds of approaches. In association with Dr. Robert Reid and one of the nurses in particular, Bonnie Quinlan, we began to document what we were doing and were able to show very substantial increases in the number of patients who were stopping smoking. That created an opportunity to expand the program, first into general hospitals in the Champlain region, and eventually into 300 healthcare centres across Canada. We also have an adapted model which is being applied in family health teams and other primary care settings across Ontario. We're dealing with hundreds of physicians and thousands of smokers, so in some ways we've transformed smoking cessation practice in those settings. However, I think it's important to understand that there is still a huge reservoir of smokers out there in the community, which underscores the importance of the continued development of public policies and regulations.

### **WHAT ARE THE KEY ASPECTS OF THE MODEL THAT MAKE IT UNIQUE OR SUCCESSFUL?**

Systemization has been very important. We emphasize the same protocol-driven approach to smoking cessation that we would use to address other clinical problems; we don't leave anything to chance. Everybody gets their blood pressure taken when they come to the hospital, and that affords an opportunity to identify hypertension. The protocol specifies that the smoking status of the patient must be identified, and we do that in two ways: asking people if they've used tobacco in the past seven days, or in the past 6 months. Only using those kinds of questions will give an accurate idea of a person's smoking status. Once documented, this triggers a cascade of other events according to the protocol, which is embedded in the hospital's care maps.

Equally important has been our ability to transform the knowledge of clinicians about smoking and its relationship to a whole array of other clinical situations, in order to move beyond "smoking is a habit and it's your fault." We really want to enhance clinicians' understanding of the processes that are responsible for the perpetuation of smoking behavior, for example, the interaction between smoking and those who have significant psychiatric illnesses. About 40% of all cigarettes today are consumed by individuals with psychiatric illnesses, and people used to assume that they didn't have the skills to manage this habit. They also assumed it was their only pleasure so if you messed with it, you'd mess with the management of their underlying illnesses. But these all turned out to be completely bogus concepts.

### **SPEAKING OF THE MENTAL HEALTH COMMUNITY, DOES THE PROGRAM ADAPT TO SPECIAL POPULATIONS?**

Absolutely. We spend a lot of time talking to our primary care colleagues about how they can assist, and about these kinds of relationships, and the implications for the care that the physicians provide. For example, the rate at which a person metabolizes nicotine is an important determinant of how likely they are to become a smoker and whether they'll have difficulty stopping. If a woman becomes pregnant, her rate of nicotine metabolism may increase substantially, so now you begin to have reasons as to why those otherwise earnest and determined young women who said, "I'm going to stop smoking when I become pregnant," have difficulty quitting.

In terms of the mental health population, it's important to understand that hundreds of times a day, a smoker is administering small doses of monoamine oxidase inhibitor-like substances, which explains why so many people with a history of, or propensity for depression are smokers. Schizophrenics smoke so exceptionally aggressively because when you stimulate the alpha-7 nicotinic receptors in their brains, this has a gating effect, and dampens the intensity and frequency of the stimuli that constantly assail and destabilize those individuals. Most clinicians have no clue about these kinds of interrelations; even as prosaic as the fact that if you're a smoker, you dramatically accelerate the metabolism of a whole variety of medications, including anti-psychotic medications, or even caffeine. Clinicians are often blissfully unaware of these commonplace kinds of relationships, which are all the more tragic given the fact that tobacco is Canada's leading cause of preventable disease, disability, and death. You would think that as a profession, we would want to know everything we possibly could about these features, so that we can help our patients who are addicts.

Contrary to what many clinicians think, the management and stability of underlying psychiatric conditions can be dramatically improved with smoking cessation. There is clear evidence that people with psychiatric illnesses can in fact quit smoking, and do so at rates similar to that of general population. This may take more time, however, and may require a more careful follow-up. The other important reality is that the life expectancy of Canadians with significant psychiatric illnesses can be 20 years less than that of other Canadians, which is an astounding public health discrepancy. The majority of that difference is accounted for by high rates of smoking and development of tobacco-related diseases. As such, this is a population that will benefit from this type of thoughtful assistance.

In terms of Indigenous populations, I have not yet seen evidence of approaches that have been novel, effective, and innovative. We acknowledge that there is sacred and spiritual use of tobacco

## Interview

in ways that do not reflect smoking as we know it, so that's an issue that's always raised when this topic comes up. The challenge, however, still remains. For example, there is a very large First Nations community just south of us in Akwesasne that has noted several issues relating to contraband tobacco and high rates of tobacco-related disease. To our embarrassment, we have not had success in developing innovative strategies with which to address these issues within the community.

Finally, the belief that you can't use nicotine with patients that have cardiac disease is a concept (although untrue) that continues to get in the way of clinicians being able to help patients stop smoking. As you can see, there's absolutely no reason why smoking cessation can't be adapted to meet the needs of specific high-risk populations. Along the way you can dispel all kinds of other deadly misconceptions that get in the way of helping people address a lethal condition.

### **WHAT IS THE ROLE OF PHARMACOTHERAPY IN SMOKING CESSATION?**

The evidence shows that you can triple or quadruple the likelihood of smoking cessation success when you provide pharmacotherapy appropriately. What you're doing is stimulating nicotinic receptors and inducing in the brain the kinds of changes that are typically produced by smoking, using either nicotine or another agent. What that does is it forestalls the development of symptoms of craving and withdrawal. This makes a patient comfortable enough so that they can then go about their daily life free of discomfort while they acquire a whole repertoire of non-smoking behaviors. Underlying that is the concept that you must make sure that the doses of the agents you're providing are appropriate to provide adequate relief from withdrawal, and that those doses are maintained long enough. For example, in pregnant women, we have to be prepared to titrate doses during pharmacotherapy in order to ensure an appropriate response during long-term follow-up. We take pains to try to talk to our colleagues about the needs of specific populations.

### **WHAT IMPACT DO YOU THINK E-CIGARETTES COULD HAVE ON THE FUTURE OF HEALTHCARE, AND DO YOU THINK THEY HAVE ANY ROLE IN SMOKING CESSATION?**

The e-cigarette question is very intriguing for a number of reasons. There's no question that aerosolized nicotine is infinitely safer than nicotine that is inhaled as a product of combustion, so from a harm reduction perspective, these devices offer some promise. The challenge, however, is that these products are totally unregulated in Canada. There can be an array of other substances added to these solutions, such as flavouring products. Furthermore, we have no way of knowing what dose of nicotine these devices are delivering. So first and foremost, we need these

products to be regulated. In the current absence of federal government regulation, the provinces have moved to fill that void. Nova Scotia and Ontario have banned the use of these devices in places where people are not normally allowed to smoke, as well as the use of flavouring substances.

The other challenge is that the tobacco industry is buying some of these companies, and they have no interest in marketing e-cigarettes as an alternative to conventional cigarettes. Rather, they will use these devices as line extensions of existing products. This opens the door to a larger number of e-cigarette users becoming dual users, as well as increased use by adolescent non-smokers who may then turn to conventional tobacco products. Finally, current evidence shows that e-cigarette users are approximately 40% less likely to stop smoking than those who use other methods of smoking cessation pharmacotherapy. Keep in mind that evidence is limited, but it is evolving and growing.

### **WHAT ADVICE DO YOU HAVE FOR STUDENTS WHO ARE INTERESTED IN GETTING INVOLVED IN ADVOCACY?**

If you're intrigued by something, don't be afraid to follow and pursue those interests. Also, don't be afraid to be unconventional. I think there is very much a tendency, which is more marked today than it was during my training, that you have to follow a certain route. There is absolutely nothing wrong with thinking a little outside the box, particularly when it comes to advocacy matters. I think all of us in medicine, irrespective of our discipline, are going to encounter circumstances which cry out for some form of advocacy. I would encourage students to speak out thoughtfully, without hesitation, on issues that can only be helped by doing so. Becoming involved in those kinds of activities can be fascinating, in that they take you into territories you never dreamed possible and experiences that are beyond the conventional.

I think of some of the advocacy roles I got involved in with tobacco control, whether it was helping to get smoking out of airplanes, or the elimination of sponsorship of sports, public health bylaws and so on. I was suddenly in unfamiliar territory, but it was fascinating. At the end of the day, what I've done in tobacco control has probably been one of my greatest contributions to the overall health of the community, and in hindsight, I don't think I'd have done things any differently.

### **ACKNOWLEDGEMENTS**

The authors would like to thank Dr. Andrew Pipe for taking the time to answer their questions. For more information about Dr. Pipe, please visit <http://www.ottawaheart.ca/physician-researcher-profile/pipe-andrew>. For more about the Ottawa Model for Smoking Cessation, please visit <http://ottawamodel.ottawaheart.ca/>. This interview has been edited.