

## SCAAALAR Media Event



Montreal, QC  
(20 September 2010)

In the heart of Montreal, Canadian allergy experts shared significant research findings from a recently completed study, *Surveying Canadians to Access the Prevalence of Common Food Allergies and Attitudes towards Food Labelling and Risk (SCAAALAR)*, regarding food allergy prevalence and perceptions in Canada.

From left to right:  
Lianne Soller, Ann Clarke, Claude Roy, Susan Elliott, Samuel Godefroy Judah Denburg

The event, hosted by AllerGen NCE Inc. (AllerGen), with special guest Dr. Samuel Godefroy of Health Canada, featured leading allergy experts Dr. Ann Clarke, a practicing allergist at McGill University Health Centre and Professor in the Department of Medicine at McGill University in Montreal and Dr. Susan Elliott, Professor and Dean in the Faculty of Applied Health Sciences at the University of Waterloo.

Drs Clarke and Elliott spoke about their current AllerGen-funded research project, the *Surveying Prevalence (of food) Allergy (in) All Canadian Environments (SPACE)* Study, set to be complete in 2012. AllerGen ASNPN member, and SCAAALAR Research Assistant and Coordinator, Lianne Soller actively participated in the presentation and interpretation of research findings. The SPACE Study has a particular focus on vulnerable Canadian populations and will build upon their current research findings and knowledge about food allergy prevalence and perception in Canada.

This research was highlighted by André Picard in the *Globe & Mail* on September 21, 2010.

## 2010-2011 Highlights



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### AllerGen Research Informs Changes to Federal Food Labelling Regulations

AllerGen's CanGoFAR team and their food labelling research, in partnership with Health Canada, contributed key evidence that factored into the federal Minister of Health's decision to announce changes to Canadian *Food and Drug Regulations*. These new regulations, announced February 14, 2011, will come into effect August 4, 2012, and will require food manufacturers and importers to clearly indicate certain food allergens, gluten sources, and added sulphites on most pre-packaged food product labels.

The contributing AllerGen funded project *Surveying Canadians to Access the prevalence of common food Allergies and Attitudes towards food Labelling and Risk* (SCAALAR) was led by Drs Ann Clarke,

an Allergist at McGill University, and Susan Elliott, a Medical Geographer at the University of Waterloo (formerly of McMaster University), who met through AllerGen and have since become a "dynamic duo" in Canadian food allergy research.

Study data was obtained through telephone surveys with almost 10,000 adult Canadians. Findings confirmed that due to a combination of risk perception, anxiety over diagnosis, anxiety over treatment at home and in school, family history, and undeveloped food safety and labelling policies, food allergy affects up to 50% of Canadian households – 20% are affected directly and another 30% indirectly because they must consider food allergies when preparing or serving food.

## One in 13 Canadians has serious food allergy



Researchers found that peanut and nut allergies were much more common in kids than adults.

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**ANDRÉ PICARD >**

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One in every 13 Canadian suffers from a significant food allergy, according to the first-ever nationwide study.

The research, published in the *Journal of Allergy and Clinical Immunology*, found that about 7.5 per cent of children and adults have at least one food allergy.

"It's a significant number," said Ann Clarke, an allergist at the McGill University Health Centre in Montreal and co-author of the study.

She said it is not clear whether the number of people with allergies is on the rise or there is just more awareness, but research like this will help establish a base for comparison in the future.

Dr. Clarke said what is more important than the number is the fact that "many people with food allergy are not properly diagnosed and experience repeated exposure that places them at risk of anaphylaxis." (Anaphylaxis is a potentially life-threatening allergic reaction.)

That is why AllerGen NCE Inc., a network of researchers, is trying to establish a national anaphylaxis registry to track cases and ensure Canadians with severe allergies get proper treatment and follow-up.

Dr. Clarke said that systematically tracking reactions can, for example, help identify foods containing undeclared allergens and expedite recalls.

"This registry will fill a crucial role; it will, hopefully, lead to the prevention of avoidable deaths," she said.

The new findings are based on a survey of 3,613 Canadians who were asked a series of detailed questions about allergic reactions and symptoms.

Dr. Clarke said while the method is not perfect, she was pleased to see that the numbers were comparable to smaller studies in which people underwent allergy testing.

According to the research, about 2.5 million Canadians suffer from food allergies, or about 7.5 per cent of the population.

They include:

- 1.93 per cent with peanut allergy;
- 2.36 per cent with tree nut allergy;
- 0.99 per cent with fish allergy

- 0.19 per cent with sesame allergy.

(The total exceeds 7.5 per cent because some people reported more than one serious food allergy.)

Researchers found that peanut and nut allergies were much more common in children than adults and the opposite was true with fish and shellfish allergy.

A second related study that examined Canadians' perceptions about allergies found that the problem is perceived to be much more common than it is in reality.

"Ask how many are affected by [food]allergies and the response is 30 per cent on average," said Susan Elliott, the dean of applied health sciences at the University of Waterloo. "That's a huge mismatch with the 7.5 per cent."

What that means, in a nutshell, is that "people are worried," Dr. Elliott said.

She noted that the only practical protection available to those with food allergies is avoidance of allergens so they are very dependent on food labels.

But the survey revealed that "people are really confused. There are too many types of labels and it's not always clear what they mean."

Samuel Godefroy, director-general of the food directorate in the health products and food branch of Health Canada, said that message has been received loud and clear.

"We're going to improve labelling rules as a result of this research," he said. New regulations on food labelling will be published by the end of this year, Dr. Godefroy said.

# AllerGen Food Allergy and Food Labelling Research Team Supports Policy Updates to Enhance the Protection of Food Allergic Consumers

Good government policy is based on strong scientific research. Without research, how can governments understand the nature and extent of a problem or know what is required to address it?

Drs. Ann Clarke, an Allergist at McGill University, and Susan Elliott, a Medical Geographer at the University of Waterloo, met through AllerGen NCE Inc. (AllerGen) and have since become a “dynamic duo” in Canadian food allergy research. In 2007, they embarked on a mission, in partnership with Health Canada, to establish the first national estimates of the number of Canadians with common food allergies. They were also curious about Canadians’ attitudes toward food allergy and whether or not product labels on food items adequately warned consumers about allergy-related ingredients.

Study data was obtained through telephone surveys with almost 10,000 adult Canadians, whose phone numbers were randomly selected from the White Pages. Survey questions, originally developed by Dr. Scott Sicherer at Mount Sinai Hospital in New York City, were adapted for use in Canada.

Research dependent upon public participation poses unique challenges for investigators. The general public is not always willing to participate in telephone surveys when contacted by a researcher. In the case of this project, 35% of those who answered the phone chose to participate. “Of course this wasn’t the participation rate we had hoped for, but realistically speaking, this is what you get now in most telephone surveys,” says Dr. Clarke. Nevertheless, the data obtained was reliable due to the survey design.

## How Common Are Food Allergies in Canada?

Survey respondents were asked if they or any member of their household believed that they had a food allergy, particularly to peanut, tree nut, fish, shellfish or sesame. They were also asked if any of those food allergies had been confirmed by a doctor through allergy testing.

The main hurdle in this study was determining who, in fact, had a true food allergy. Many survey respondents, who believed



Dr. Ann Clarke, McGill University



Dr. Susan Elliott,  
University of Waterloo

that they had a food allergy, had not seen their family doctor for allergy testing. Second, of the small group of survey respondents who had confirmatory tests, only some gave the researchers permission to access their medical file. Even then, only a few of the doctors’ offices contacted actually sent researchers the requested files.

In order to determine the prevalence of food allergies in Canada, Drs. Clarke and Elliott relied on food allergy symptoms as reported by survey respondents. “We asked very detailed questions about the foods that they had eaten, the symptoms that they had experienced, how long after they had eaten the food did they have these symptoms, and whether these symptoms occurred predictably each time after they ate the food. We then determined whether or not these symptoms suggested that they were truly having an allergic reaction,” explains Dr. Clarke.

Food allergy symptoms generally develop within an hour after eating. Symptoms may include an irritated mouth, swelling of the lips or the tongue, runny eyes or nose, itchy skin or hives, difficulty breathing, stomach cramps, vomiting, unconsciousness, and in some cases, even death.

“While it is commonly accepted that approximately 4% of Canadians have food allergies, this study found that 7.5% of Canadians believe that they have at least one food allergy and

that the prevalence of food allergy differs between socio-economic groups and geographic regions” states Dr. Clarke.

Dr. Elliott added, “Our research also shows that a large gap exists between Canadians’ perception of food allergy prevalence and actual food allergy prevalence. Food allergy is

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**“Health Canada has the benefit of all the data that we have collected. The government has made an informed decision about what sorts of labels will work on foods packaged to best benefit those suffering from food allergies,” states Dr. Elliott**

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the primary trigger of anaphylaxis, which we know can be life threatening. It is, therefore, essential that through research, we compile a comprehensive picture of food allergy prevalence and perception in Canada to appropriately inform regulatory decisions and reduce the overall burden.”

### Do Canadians Take Food Allergies Seriously?

Survey respondents were asked to estimate what percentage of the population has a food allergy. On average, respondents believed that 33% of all Canadians, or one in three people, have a food allergy. This confirms that Canadians believe food allergies are more common than the evidence suggests. Researchers also found that Canadians typically rated the risk associated with having a food allergy as “very high.”

Dr. Clarke pointed out that while food allergy has to be taken seriously, the symptoms of the disease are completely preventable, which is not the case with most chronic diseases. “If you recognize food allergy early, and through proper education and food labelling you avoid the food, then you should never have any problems with the allergy,” she explains. “However, it can be very difficult to avoid foods containing allergens such as peanut and accidental exposures often occur.”

There are some notable exceptions when it comes to Canadian attitudes related to the dangers associated with food allergy. Seniors tend not to take food allergy seriously, which can cause friction with family members who have children with a food

allergy. “To older people, this is a relatively new thing, and it doesn’t make much sense,” says Dr. Elliott. Also, men who have a severe food allergy “tend to be more cavalier in their behaviour,” she advises. “The literature does tell us that familiarity with a risk lessens your perception of it.”



Drs. Clarke and Elliott suspect that the media plays a key role in creating the false perception that food allergy is both rampant and highly dangerous. Dan Harrington, a PhD student supervised by Dr. Elliott, conducted a media analysis of all the national and regional newspapers in Canada, a total of 18 English and French language newspapers, from the year 2000 onward. He looked at how often food allergy prevalence is reported, and who the media quotes as “experts” in their stories.

Mr. Harrington found that the media consistently exaggerates the prevalence of food allergy. It appears journalists typically rely on reports from affected individuals such as parents of allergic children and are not checking the facts with qualified allergy experts, patient associations or research networks like AllerGen NCE.

### Do We Need to Improve Our Food Labels?

The answer is a resounding “yes!” and Health Canada has taken the first step in February 2011, by finalizing changes to *Canadian Food and Drug Regulations*, which will require the declaration in plain language of allergens in food products including almonds, Brazil nuts, cashews, hazelnuts, macadamia nuts, pecans, pine nuts, pistachios, walnuts, peanuts, sesame seeds, wheat and triticale, eggs, milk, soybeans, crustaceans, shellfish, fish and mustard seed. These rules will also limit instances where one of these ingredients will be “hidden” from declaration, because it is a secondary ingredient or component of ingredient. However,

at present, several different types of precautionary statements for allergy-related ingredients on Canadian product labels still exist, which is confusing for consumers. For example, a label could state: “may contain nuts;” or, “may be produced in a factory that manufactures nut products,” or “may be produced on equipment that has come into contact with nuts.” In some cases, the precautionary statement on the label is inappropriate. For example, there are labels on some 100% fruit-juice popsicles that state, “may contain nuts.” A consumer who is interested in avoiding nut products could be confused over which product is a safe purchase.

Health Canada aims to reduce the number of precautionary statements used on Canadian food labels and is looking to Drs. Clarke and Elliott’s research to provide guidance. Based on their research findings with respect to consumer choices and Canadians’ perception of risk when it comes to food allergy, the feedback to Health Canada is that the information on food packaging must be both simple and prominent.

Drs. Clarke and Elliott have also provided the data from this study to AllerGen investigators specializing in health economics at the University of British Columbia, who are brainstorming different ways to present precautionary statements to consumers, and are speaking to consumers about which of the options they like the best and why. For example, is it better to write “Peanut-free,” or have a symbol that denotes this?

The challenge is agreeing on a set of precautionary statements that are consistent, universally understandable, and prominently displayed on food packaging. Canada is a nation of immigrants, which means that researchers designing precautionary statements need to take into account the fact that English or French may not be the first language for many Canadians, and that there may be cultural differences when it comes to interpreting symbols. An additional challenge is the visual clutter created as a result of having to include precautionary statements and ingredient lists in both English and French. Similarly, the smaller font size required to accommodate the additional information may make labels harder to read. As a result, precautionary statements can be easily missed by seniors, people with impaired eyesight, or by hurried shoppers.

The good news for Canadians is that results from this nationwide study have already been used by Health Canada to change food labeling regulations and the next step is to improve precautionary statement labeling on food products containing

common allergens. “Evidence-informed policy is important,” states Dr. Elliott and “Health Canada has the benefit of all the data that we have collected. The government has made an informed decision about what sorts of labels will work on foods packaged to best benefit those suffering from food allergies.”

### Filling the Knowledge Gaps

As a clinical allergist and epidemiologist, Dr. Clarke studies the natural history of a disease, describes its frequency and identifies factors influencing its outcomes. Dr. Elliott, on the other hand, as a medical geographer, studies the influence of environment on health and well-being.

It was AllerGen NCE that encouraged Dr. Clarke and Dr. Elliott to work together and as a result, a highly successful research partnership was born and continues to thrive. “Without AllerGen, our paths would not have crossed,” says Dr. Clarke. “The partnership would not have happened, and AllerGen helps us to nurture that relationship.”

Drs. Clarke and Elliott have clearly benefited from their affiliation with AllerGen NCE, and will in turn benefit Canadian consumers by passing their findings on to Health Canada. They have also been working closely with Canadian patient advocacy groups like Anaphylaxis Canada; Association Québécoise des allergies alimentaires (AQAA) — Quebec’s food allergy association; and the Allergy/Asthma Information Association (AAIA), so that people living with food allergies have access to the most current information.

Drs. Clarke and Elliott aim to ensure that this AllerGen NCE - Health Canada study improves the everyday lives of Canadians, and to date they have had a direct impact on Canadian public policy. As of August 2012, the mandatory changes on all Canadian food labels for allergen ingredient declaration will take full effect. Other changes using these research results are being contemplated by Health Canada in the months ahead. Dr. Samuel Godefroy, Director General, Food Directorate with Health Canada says, “Health Canada’s Food Directorate has had a very fruitful collaboration with AllerGen.” Dr. Godefroy adds, “Health Canada’s Food Directorate will continue to partner with AllerGen to fill the knowledge gaps associated with food allergies and anaphylaxis in support of its actions to enhance the protection of food allergic consumers in Canada.”<sup>14</sup>