Jenifer Funk

I have come here today with information to hopefully alleviate some of your fears regarding Chickens, infectious diseases and public health for the city of Winnipeg.

A study was conducted by members of the Canadian Field epidemiology Program, Centre for Coastal Health, The Faculty of Veterinary Medicine at the University of Calgary, The School of population and public health at the University of british Columbia, Environmental health services for British Columbia and the National collaborating centre for environmental Health in Vancouver.

It is called "Raising Chickens in City Backyards: the public Health Role" published in the Journal of Community Health in 2012.

The abstract states,

"There is increasing interest in raising chickens in urban settings across North America. Current regulations on backyard chickens vary by jurisdiction due to concerns about perceived health threats. Proposed negative impacts on public health and community well-being include infectious diseases acquired through rearing practices or consumption of eggs, inappropriate waste management, interaction with pests and predators and nuisance factors such as noise and odour. Proposed benefits are derived largely from the human-animal bond and from feelings of autonomy over food selection. The importance or validity of claims of positive and negative effects cannot be supported by literature specific to the urban agriculture context. Public health practitioners might approach this issue in a manner analogous to concerns over keeping domestic pets."

I have forwarded this article to the Chief Operating Officer of the City's Animal Services Agency. It has a lot of good information regarding raising chickens in back yards and I will stick to the points made on diseases and infections.

Quoting again from the article,

There are limited data from North American sources describing zoonotic infectious disease risks from backyard chicken flocks. Inferences from data on Asian backyard chicken flocks must be made cautiously as social and environmental conditions, and thus exposure routes and transmission, may vary greatly from North America. Similarly, risks in commercial flocks, including risks to poultry workers, may not be representative of those in backyard flocks and their keepers due to differing circumstances. Nevertheless, there exist a number of plausible routes of exposure for people to avian pathogens through backyard farming (e.g., direct contact, trauma, waste handling and egg consumption) in addition to avian pathogens that are zoonotic.

Although there are many bacterial, viral and parasitic zoonotic diseases of chickens, most

research has surveyed flocks for pathogens of concern to other poultry and wild birds rather than zoonoses. Avian Influenza (AI) and salmonellosis are two exceptions. Avian influenza has received significant media and public attention and has been a major focus in commercial and Asian backyard chicken flocks. However, endemic diseases such as salmonellosis and campylobacteriosis pose ongoing health threats in the North American context due to consumption of eggs, and handling of birds and their waste including manure and carcasses. The literature examining these risks has focused mostly on the commercial poultry setting rather than on backyard flocks.

There are potential health risks associated with direct contact with birds and their eggs; however, the perceived risk of AI from backyard flocks is probably overestimated due in part to media attention on this issue.

This report goes into some very scientific wording to explain avian flu and samonella risks and I would like to encourage Animal Services to read it but for the purpose of this meeting I will use another report from CITY(or Chickens in the Yard) from the city of Salem in 2010 when they were defending backyard chickens to their council as the terms are easier for us here without degrees in zoonoses to understand.
http://www.chicken-revolution.com/Research_Packet_Sept_2010.pdf

Bird flu is spread by contact with the contaminated feces of wild birds, primarily migratory waterfowl. Unlike rural farm birds, which might co-mingle with migratory birds or drink from a shared pond, "backyard chickens" will be kept in an enclosed pen where contact with migratory birds is unlikely.

OSU Poultry Extension Specialist, Dr. Jim Hermes, states "*Bird flu of the type noted in the media has not been diagnosed in the whole of the Western Hemisphere and may not ever find its way here*" and "*chickens are relatively healthy animals.*"

Dogs and cats can spread parasites, bacteria, fungi and viruses to humans. Rabies is an example of a viral infection that can be transmitted to people from the saliva or bite of a dog. Cat Scratch Fever is a bacterial infection passed to people by cats. Each year, 25,000 cases are diagnosed in the U.S. Ringworm, a highly contagious fungal infection, can be transmitted to humans by touching an infected animal's fur or skin and is common in stray kittens that roam freely. Roundworm, hookworm, tapeworm, and Giardia are intestinal parasites that can be passed to humans from pet waste. There are also a number of tick-borne diseases that can be brought home from dogs and cats like Lyme disease and Rocky Mountain spotted fever.

Keep in mind, too, that bird diseases like Exotic Newcastle, West Nile, or avian influenza can infect different types of birds, not just chickens, including common pet birds like parrots, finches, and cockatiels. There are also diseases people can catch from hamsters, reptiles, and other

common pets. But regardless of this, people will continue to love and care for all kinds of pets because they enrich our lives, provide companionship, teach responsibility, entertain us, and in the case of chickens, provide eggs!

Dr. Emilio DeBess, Oregon's Public Health Veterinarian, stated "*People are not at risk of developing influenza by having a domesticated bird at home (not wild). If a client has a wild bird at home, the chances of a virus mutation and the possibility of jumping species, (given that the bird has influenza) are minimal*". Also, researchers at Johns Hopkins University concluded that backyard flocks are four times less likely to contract bird flu (http://www.hsus.org/farm/news/ournews/small_flocks_lower_bird_flu_risk.html).

The last report I would like to quote from was a policy report given by the Chief Licence Inspector on the subject, Guidelines for Keeping of Backyard Hens to the city of Vancouver

http://former.vancouver.ca/ctyclerk/cclerk//20100408/documents/penv3.pdf

Avian Influenza
Chickens, like other birds, are susceptible to forms of Type A influenza that are collectively known as "avian influenza" (AI). The AI virus is widespread, particularly among wild birds, but most forms produce relatively mild or no symptoms. AI can mutate, after circulation in a concentrated poultry population, into highly pathogenic forms (HPAI) that produce severe symptoms but this is less common. AI is not an airborne disease, but is transmitted from infected to healthy birds via direct contact with birds and their droppings, feathers, and body fluids.

AI has spread to humans in rare instances. Transmission from birds to human remains difficult, usually involving prolonged and close contact, and human-to-human transmission has been suspected in only a handful of cases. The greatest risk of infection for humans appears to be through the handling and slaughtering of live infected poultry. Public health concerns centre on the potential for the virus to mutate or combine with other influenza viruses to produce a form that could easily spread from person to person.

A high pathogenic H5N1 subtype of AI has caused virulent disease among birds in parts of Asia, Africa, and Europe, and rare but serious disease in humans. An outbreak of high pathogenic H7N3 AI occurred among poultry in the Fraser Valley in 2004, resulting in the deaths of 17 million birds (through disease and culling) but only two mild cases of flu among humans.

Health authorities in Canada consider the risk of H5N1 reaching North America, or other HPAI subtypes spreading among backyard hens, to be extremely limited, particularly if biosecurity measures, such as those recommended by the CFIA, are followed.

The British Columbia Center for Disease Control (BCCDC) conducted a literature review on the risks of infectious disease from backyard hens and found that

> Overall, the risk of pathogen transmission associated with backyard chicken keeping appears to be mild and does not present a greater threat to population health compared to other animals allowed by similar bylaws (reptiles, dogs, etc). Public adherence to proper hygiene will significantly mitigate the risk of any disease acquisition including pathogens commonly found in chickens.

Dr. Victoria Bowes, a board-certified Poultry Veterinarian in the Fraser Valley and an authority on the Fraser Valley outbreak, considers the risk of HPAI among backyard hens to be minimal, stating that

> As long as Asian HPAI-H5N1 remains foreign to Canada AND the birds don't move out of the backyard once they are placed, then the avian influenza disease risks are extremely low (almost negligible).

Similarly, Interior Health recently released a document entitled "Backyard Chickens in the Urban Environment," which is intended as a guide for municipalities considering the health implications of backyard chicken keeping. The document states

> The risk of avian influenza development is not appreciably increased by backyard hens. Urban hen keepers should be encouraged to follow the advice of CFIA: Bird Health Basics - How to Prevent and Detect Disease in Backyard Flocks and Pet Birds.

These guidelines can be found on the website for the

Canadian Food Inspection Agency
http://www.inspection.gc.ca/animals/terrestrial-animals/diseases/bird-health-basics/eng/1323643634523/1323644740109

Along with a video to further explain how to keep your flock healthy.

From the studies that I have read, education is the best way to help prevent disease and infection when it comes to raising chickens in our backyards and I know that a lot of people from this group of delegates would enjoy helping animal services in this area.

Thank you.