TORONTO

STAFF REPORT
INFORMATION ONLY

Further Information on A Guide to Eating Fish for Women, Children and Families

Date:	June 18, 2008
To:	Board of Health
From:	Medical Officer of Health
Wards:	All
Reference Number:	

SUMMARY

On April 21, 2008, Toronto Public Health (TPH) introduced its new fish consumption resource, *A Guide to Eating Fish for Women, Children and Families*. The information was presented in both brochure (guide) and wallet card formats. This report responds to requests for clarification raised by members of the Board of Health about the approach used to develop the guidance on fish consumption, focussing on a discussion of how fish were categorized by content of polychlorinated biphenyls (PCBs).

TPH assessed the risks concerning exposure to PCBs from consuming fish such as farmed salmon using the most recent Canadian data. Consistent with the recent conclusions of other researchers examining the issue, TPH's assessment indicates that PCB levels in farmed salmon available in Canada have decreased in recent years. As a result, farmed salmon can be placed in the *Safe to Eat Often* category.

TPH has also further refined the resources to ensure both health and sustainability messages are clear and is finalizing its distribution plan.

Financial Impact

There are no financial implications resulting from the adoption of this report.

DECISION HISTORY

At its meeting of April 21, 2008, the Board of Health requested the Medical Officer of Health to submit a report advising how the levels of polychlorinated biphenyls (PCBs) were set. In addition, this report answers questions raised by Board of Health members

and stakeholders about how sustainability considerations were incorporated into the resource.

ISSUE BACKGROUND

The new fish consumption resources further refine the fish consumption advice for women, children and families, initially reported to the BOH in September 2006.[1] Since 2006, TPH consulted extensively with a wide range of key stakeholders to incorporate the considerations for making healthy and sustainable fish choices into a resource that is clear and accessible to Toronto's diverse communities.[2]

COMMENTS

New Resources Provide Integrated Advice

The new TPH fish consumption advice integrates information on levels of methylmercury, polychlorinated biphenyls (PCBs), omega-3 fats, as well as ecological or sustainability concerns, allowing consumers to make informed choices about their fish consumption. Few, if any, fish consumption resources that aim at reducing risk include all of this information in one place.

New Advice Provides Information for Sustainable Fish Choices

Toronto Public Health supports sustainable food production. Poor fisheries management can result in habitat damage, threats to other aquatic life and overfishing. Fish species that may be caught or farmed in a way that is harmful to the environment are highlighted in the Guide as well. These fish may come from sources that have a combination of problems or unsustainable practices such as habitat damage, by-catch or discarding and wastage of unwanted fish, poor fisheries management, low fish populations, or populations listed by governments as “endangered”. Since the April 21, 2008 BOH meeting, TPH further consulted with SeaChoice, a Canadian not-for-profit organization that conducts research and provides guidance to Canadians about sustainable fish choices. TPH made further revisions to the Guide to clearly identify unsustainable fish species for the consumer. A number of the species listed in SeaChoice’s *Avoid* category are now separated out from other fish species in the TPH Guide. Among these species is farmed salmon due to concerns with transfer of disease and parasites from farmed to local wild salmon, pollution and waste from salmon farms and stress on fish stocks used to feed farmed salmon.

PCB Levels in Farmed Salmon Available in Canada

Farmed salmon is low in methylmercury and high in omega-3 fats. However, studies have shown salmon, particularly farmed salmon, may contain other contaminants, such as PCBs. In 2004, researchers in the United States reported on the risks from eating farmed salmon. Their analysis tested for PCBs and other organochlorines in a large number of farmed salmon sampled from around the world in 2002.[3] In response to this research, the farmed salmon industry changed its feeding practices in order to reduce the contaminant levels in the salmon.[4] This has been demonstrated in recent studies. [5][6][7][8] For example,

one study found that Canadian farmed salmon tested in 2003 and 2004 had PCB levels that were 2.5 times lower than the 2002 Canadian farmed salmon samples.[5 3]

TPH assessed the risks concerning exposure to PCBs from consuming fish including farmed salmon. TPH used the most recent published Canadian data [6 7 9 10] as well as unpublished 2007 data from the University of Toronto.[11] Similar to a recent risk-benefit analysis of eating Canadian fish, the data were compared to the most conservative (that is, most health protective) toxicity reference value developed for effects on the fetus.[7 12] The TPH assessment indicates that farmed salmon is in the *Safe to Eat Often* category. That is, women who are pregnant or breastfeeding, or who may become pregnant, can eat four 75 gram servings of farmed salmon and children can eat two 75 gram servings each week. Men, teenage boys and women who are fifty years or older do not need to restrict their consumption of farmed salmon. TPH fish consumption advice and risk-benefit analysis of farmed salmon is consistent with those of other researchers who have examined the issue using recent Canadian data.[7]

The reported levels of PCBs in farmed salmon purchased in markets in Canada are significantly lower than those found in Great Lakes fish or in some other market fish species. Pickerel and buffalo fish were sampled from Toronto fish markets and although they are not high in mercury, they were found to be high enough in PCBs to be placed in the *Avoid or Eat Rarely* category for the most vulnerable. Fish consumption guidance for fish caught in the Great Lakes and other waterways in Ontario is available through the Ministry of the Environment's *Guide to Eating Ontario Sport Fish* which is published every year.

Key Messages Regarding Fish Consumption

TPH's new fish resources encourage fish consumption and support the new Canada's Food Guide message of consuming at least two servings per week of a variety of fish. The best fish choices are those fish that are low in mercury, high in omega-3 fats, and are caught or farmed in a way that doesn't harm the environment.

TPH is finalizing a broadened distribution plan consistent with the advice provided by BOH members at the April 21, 2008 meeting. The resources are now posted on the internet along with frequently asked questions. TPH will share the resources with Toronto's Children's Services, Long-term Care Homes & Services, Parks, Recreation & Forestry and Shelter, Support & Housing Administration Divisions. It will also share the resources with a broad range of professional groups including the Society of Obstetricians and Gynaecologists of Canada (SOGC), the Association of Ontario Midwives, Toronto Nutrition Network, the Nutrition Resource Centre of the Ontario Public Health Association, EatRight Ontario, Ontario Society of Nutrition Professionals in Public Health (OSNPPH), Dietitians of Canada (DC), Canadian Prenatal Nutrition Program Coordinators and the Ontario Early Years Centres. Through the Canadian Partnership for Children's Health and Environment, TPH will share its resources with the Ontario College of Family Physicians, the Canadian Child Care Federation and environmental non-governmental partners.

TPH has plans to translate the resource into several languages initially (Chinese, French, Portuguese, Spanish, Tamil and Urdu). TPH will also work with print, radio and television media, especially those reaching multicultural audiences, to publicize the resource and its fish consumption messages. TPH will also continue to work with community partners through the Peer Nutrition Program to help identify relevant community events through which to distribute the fish resources.

TPH will continue to collaborate with other Ontario public health units and will provide input to Health Canada as they further develop their risk communication messages on fish for Canadians.

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