# Chicken derivative food supply chains in Fukuoka Prefecture, Japan

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Chicken derivative food supply chains from farm to retail outlet were investigated in Fukuoka Prefecture, Japan.

[Key Words: Chicken meat, chicken product, supply chains]

#### 1 Introduction

Chicken meat is one of the most important vehicles for *Salmonella*<sup>1,2)</sup>. Understanding the chicken supply chain is also important to defend against *Salmonella* contamination from chicken product. The chicken supply chain consists of stages including primary production, processing, distribution, handling and preparation<sup>1)</sup>. Each stage influences the *Salmonella* contamination at the final preparation stage. Although chicken meat supply chain systems are known to be different between countries<sup>3)</sup>, no data are available for Japan.

## 2 Methods

The methods for the supply chains of chicken derivative foods in Fukuoka Prefecture were studied using several sources: reports<sup>4)</sup> and personal communication with veterinarians from the Japan Chicken Association and the Fukuoka prefectural government.

## 3 Results

Figure 1 shows the variations in chicken derivative food supply chains in Fukuoka Prefecture, Japan. Domestic chicken meat comprised about 73% of the Japanese retail chicken meat market in 2003<sup>4</sup>). More than 90% of domestic chicken meat comes from broilers<sup>5</sup>). The other chicken meat consists of *Kokunai-Meigaradori* (domestic branded chicken, some from native chicken lines), spent layer chickens (so-called boiling hens) and mother hens of commercial broilers (mainly for *sashimi* or *tataki*, both made of raw chicken). The number of broiler farms in Japan was 2,392 in 2009<sup>6</sup>). Slaughterhouses produce large 2 kg packs of broiler carcasses and giblets (consisting of 28 portions). These large packs are handled by wholesale companies and can be

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repacked for retail sale as items such as thighs at packing stations that are run by wholesale companies or retail outlets (for example, supermarkets). These retail packs (about 100 g–300 g) are sold in retail outlets. Thigh meat is more popular than breast meat in Japan. Some chicken meat for retail sale is packed in the retail outlet without using packing stations. *Kokunai-Meigaradori*, spent layer chickens and mother hens of commercial broilers are distributed separately. Retail outlets purchase these chicken meat portions and giblets from several wholesale companies and/or slaughterhouses. In some retail outlets, portions of the same type from different companies and/or slaughterhouses are sometimes combined for sale in the same packs.

## 4 Discussion

Knowledge on Chicken derivative food supply chains could help decrease Salmonella contamination in chicken derivative foods.

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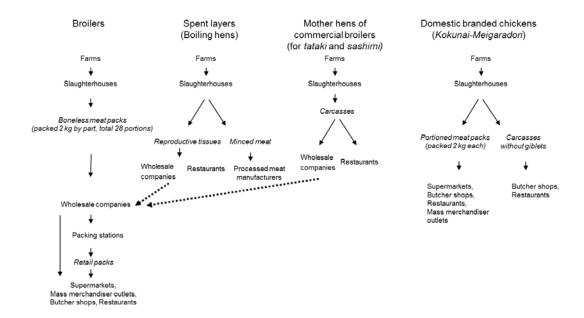


Fig. 1. Variations in chicken meat and processed chicken meat supply chains in Fukuoka Prefecture, Japan. Most packing stations are run by wholesale companies, supermarkets or mass merchandiser outlets. "*Tataki*" is thin slices of raw chicken with a briefly roasted surface (processed chicken meat). "*Sashimi*" is thin slices of raw chicken, made from mother hens of commercial broilers.