Mandatory Federal inspection of poultry will not eliminate all unfit poultry from the consumer market. States and municipalities have the major responsibility for regulating the poultry industry's intrastate production and distribution.

# **Federal and State Poultry Programs**

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ALL GROUPS concerned agree on the need for official poultry hygiene inspection. This was demonstrated during hearings in 1956 and 1957 before five congressional committees (1-5). What makes such inspection necessary? What should its objectives be? How can those objectives be attained? Where do basic responsibilities rest, and what is the present picture in relation to those responsibilities?

The problems necessitating official poultry hygiene inspection and supervision fall under three general headings: diseased poultry, insanitary plants and products, and conditions not apparent to the consumer.

#### **Diseased Poultry**

Other workers (6-10) have dealt extensively with poultry diseases as public health problems. Therefore, it is sufficient to point out that infected birds may transmit a disease, such as psittacosis, to poultry plant employees or other persons who dress or eviscerate them, or they may serve as a source of a foodborne disease, such as salmonellosis. Consumers do not want to buy food derived from or contaminated by

Dr. Atkinson is consultant, Poultry Inspection and Sanitation, Milk and Food Program, Division of Sanitary Engineering Services, Public Health Service. This paper is based on an address at the Sixth Annual Health Conference, University Park, Pa., August 20, 1957. diseased birds, nor do plant employees wish to handle badly diseased poultry, even when there is no health hazard.

Diseased poultry originates, of course, at the farm or producer level. Reports in 1956 by the Committee on Poultry Diseases, American Veterinary Medical Association (11), and the Committee on Transmissible Diseases of Poultry, U. S. Livestock Sanitary Association (12), indicate the continuing nature of this problem. The latter report states:

"In reviewing the research work in the field of poultry diseases that has been done during the past year, one is aware that progress is being made, however slowly, in the knowledge and control of transmissible diseases of poultry. New problems, such as synovitis and ornithosis, increased in importance while others, such as hemorrhagic syndrome of chickens, decreased in incidence during the past year. In general, however, the major problems, such as leukosis, respiratory diseases, salmonellosis, and others, that have confronted us in the past are still the major problems of today."

Unfortunately, diseased poultry does not remain at the farm or producer level. Some of it goes to be processed and, unless rejected at that point, enters retail food channels.

While the vast majority of poultry sold for processing is healthy, a substantial amount is diseased. For example, the U. S. Department of Agriculture, under its voluntary poultry inspection program, inspected about 30 percent of the poultry sold off farms in 1936, or more than 1.4 billion pounds. The amount rejected 11,270,951 pounds, was a little less than 0.8 percent of the total inspected. But this is a sizable amount considering the number of individual servings of poultry meat or products that could have been obtained from 11 million pounds of poultry.

What happens to diseased poultry which is processed under makeshift conditions on the farm, in retail markets, restaurants, or hotel kitchens, or in plants lacking official inspection ? Obviously, the consumer has no assurance that unfit birds will be rejected in the absence of official inspection for wholesomeness. Even if financial or other personal considerations were not of primary concern to them, the persons involved seldom have the training or experience necessary to evaluate diseased poultry objectively from the health and consumer viewpoints.

A similar, related problem exists with poultry processed in the absence of continuous official supervision for sanitation.

## **Insanitary Plants and Products**

There is some reason to believe that insanitary conditions, as well as diseased poultry, may contribute to the relatively high incidence of illness among employees in the poultry processing industry. Speaking at the Institute of American Poultry Industries Annual Fact Finding Conference in 1955, Victor Pringle, president, Associated Poultry and Egg Industries, stated: "One firm I know saved \$12,000 last year in compensation insurance, by controlling infections and skin rashes, thanks mainly to a better sanitation program throughout all parts of its plants."

It must be emphasized that far too little is known about the specific illnesses which affect poultry plant workers and the exact causative factors. According to Bureau of Labor Statistics reports, the injury frequency rate in the poultry and small game dressing and packing industry is almost three times the average of 135 manufacturing industries (13). The scope and significance of workers' health problems call for careful study and evaluation and the application of all practicable safeguards. With respect to foodborne disease outbreaks, also, our information is incomplete. Insanitary conditions or the lack of adequate refrigeration during processing and distributing or during preparation and serving undoubtedly cause many of the outbreaks. Here, again, the application of known sanitary safeguards should be accompanied by continuing research and epidemiological studies to delineate the problem more definitely. Of course, any of a number of conditions or operations in poultry processing establishments may cause insanitary products (14). These conditions are particularly significant.

• Diseased poultry slaughtered for processing may contaminate facilities, equipment, employees' hands, and otherwise clean, healthy poultry.

• Mass contamination may occur when uneviscerated (New York dressed) carcasses are held for delayed evisceration (15-18), particularly when chilled in water or ice slush, packed or shipped in cracked ice, or frozen and subsequently defrosted for evisceration.

• Building facilities or equipment may be inadequate for the volume or type of processing operations, making sanitation a practical impossibility. When poultry is dressed or eviscerated in retail markets, restaurants, or hotel kitchens, conditions are also conducive to contamination of other foods with feces and other wastes from the birds.

• Processing, particularly evisceration of carcasses, may be conducted at such high speeds that carcasses are frequently contaminated with feces or other filth.

These conditions, as well as others, may exist completely unknown to the ultimate consumer.

## **Conditions Inapparent to Consumer**

Because of present marketing practices and buying habits, the average consumer has little personal knowledge concerning poultry and poultry products. This was not true years ago.

Formerly, the average family ate most of its meals in the home. The housewife selected her poultry live at the farm or market. Although not qualified to make a professional evaluation, she quickly refused any bird which did not appear to be bright and healthy. Similarly, upon eviscerating the bird or observing its evisceration, she rejected any carcass with abscesses, tumors, obnoxious exudates, badly swollen or discolored liver, or other abnormal or questionable conditions. She could also be sure that the edible carcass and giblets were not soiled with filth during evisceration.

Today, most housewives select their poultry and poultry products, either ready-to-cook or precooked, from a large variety displayed in the retail market. In addition, many servings of poultry and poultry dishes are consumed in public eating establishments. The consumer does not see the live bird or observe its processing.

So far as consumer knowledge or surveillance is concerned, abscesses, tumors, and diseased organs or parts could be removed from unfit poultry carcasses and the remainder sold as ready-to-cook poultry. Birds which are diseased, emaciated, or so altered in appearance as to be unsalable as ready-to-cook poultry can be processed, sold, and served as one of the numerous poultry dishes that preclude even an expert's evaluation of its original condition.

Similarly, insanitation may be completely hidden from the consumer. Poultry soiled by feces or other wastes can be washed off or processed so that the ultimate consumer will never be aware of the soiling, even though a seedbed of bacteria may remain (15). A good example of this is New York dressed poultry. Often grossly contaminated during chilling or other handling pending delayed evisceration, a very small proportion of such poultry actually reaches the ultimate purchaser in the uneviscerated form. Much of it is finally eviscerated in processing plants or retail markets and sold to the consumer as "fresh" ready-to-cook poultry. Most of the remainder is eventually used in various precooked poultry products or served in public eating establishments to the unaware consumer.

Other less serious but nevertheless objectionable practices may be inapparent to the purchaser. For example, frozen poultry may be defrosted and sold as "fresh." Unfrozen poultry may be held too long in distribution channels and sold to the housewife as "fresh" poultry, when in fact its freshness is substantially deteriorated and its storage life practically exhausted. Such practices have even involved products treated with antibiotics to extend storage life.

## **Objectives of Poultry Hygiene**

In view of these problems, what should be the basic objectives of official poultry hygiene programs? Health and consumer groups agree that they certainly should provide:

• Protection of the consumer's health and interests by preventing the processing, distribution, sale, and consumption of diseased, insanitary, or otherwise adulterated poultry or poultry products.

• Assurance that poultry and poultry products have not been altered or treated to conceal inferiority, that they are factually and informatively labeled, and that they are prepared, packaged, and distributed so as to protect against contamination and spoilage to the point of purchase by the ultimate consumer.

• Protection of the health of poultry industry personnel to the fullest extent practicable.

Among the specific steps that can be taken to attain these objectives are:

1. Antemortem inspection of all poultry to be slaughtered, and elimination of birds determined to be unfit for food.

2. Postmortem inspection of each carcass and its viscera at the time of evisceration, immediately following slaughtering and defeathering.

3. Inspection of the processing of poultry pies, patties, soups, dinners, and stuffed or breaded poultry.

4. Reinspection of poultry and poultry products whenever necessary to assure continued fitness for use as food.

5. Destruction or denaturing of condemned live birds and other condemned poultry and products.

6. Supervision of sanitation in processing plants and during storage and distribution.

7. Supervision of the labeling and identification of the product.

8. Cooperation between inspection agencies and livestock disease control officials to control and prevent diseases in poultry.

9. Investigation and corrective or preventive measures when foodborne disease outbreaks are attributed to poultry, and when disease outbreaks occur among the employees of poultry processing plants.

10. Continuing research and field studies to delineate more definitely the health hazards associated with processing and consuming poultry and to develop increasingly effective safeguards.

# Where Responsibility Rests

The concept of "let the buyer beware" cannot be applicable to foods. Recognizing his inability as an individual to make sure of the safety and acceptability of foods, the consumer looks to government for assurance and protection. While the food processor has a basic responsibility for his product, governmental agencies have found it necessary to provide various regulatory programs to guide and assist the food industries, and to protect against both unintentional and premeditated actions which may be detrimental to the health and welfare of the public.

In this country, State and local governments have primary responsibility for protecting the health and welfare of the citizens within their jurisdictions. Logically, this responsibility is usually assigned or delegated to the State and local health agencies. In turn, these agencies may seek, from Federal or other sources, specific assistance or guidance when research, field studies, or developmental work beyond the resources of one State or municipality is needed. The Public Health Service receives numerous requests of this nature.

On the other hand, a problem may be partly interstate in scope and can best be approached at the interstate level by the Federal Government. In either case, basic public health responsibility generally remains with the State and local health agencies. Because of the mass production and widespread distribution of many foods, this has been the pattern in food hygiene.

Thus, the Public Health Service provides technical assistance, develops program guides and training aids, conducts training courses, and engages in and supports research and investigations to aid States and municipalities in their milk and food programs. Upon the recommendation of both the Association of State and Territorial Health Officers and the U. S. Livestock Sanitary Association, the Service developed a model ordinance covering sanitation in poultry processing and marketing (19-21).

The Food and Drug Administration inspects poultry processing plants engaged in interstate commerce and examines products shipped interstate. For almost 30 years the Department of Agriculture has provided voluntary inspection and sanitation services (22, 23) to poultry processors who apply and pay fees for it and who comply with regulations. This service seldom includes antemortem inspection and may cover only part of a particular plant's operations and products.

Official supervision over plants engaged only in intrastate commerce and over food products moving only intrastate, even though originating in federally inspected plants, has remained a function of the State and local governments. An estimated 50 percent of the Nation's processed poultry remains intrastate and is not subject to the Federal Food, Drug, and Cosmetic Act.

State and local governments have adopted varying laws and regulations concerning poultry hygiene (24). Some have not proved to be completely effective, either because they do not cover all major factors or because of a lack of uniformity in requirements, interpretation, or enforcement by jurisdictions in respective shipping and receiving areas. Virginia and Texas have recently initiated voluntary inspectionfor-wholesomeness services to poultry processing plants. However, California is the only State which has a mandatory poultry inspection service, and actual inspection in California is conducted by licensed plant owners or employees.

# Federal Legislation

In 1957 Congress enacted Public Law 85– 172, the Poultry Products Inspection Act. Major items in this bill are:

1. Mandatory inspection by the Department of Agriculture of all poultry processed in plants engaged in interstate or foreign commerce, inspectors to be employees of the Department or designated State employees, and all expense (except for overtime and holiday work) to be paid through appropriations to the Department of Agriculture.

2. Application of the act to the extent deemed desirable by the Secretary of Agriculture in certain areas of intrastate commerce, to be designated by him after hearings called at the request of certain State or local official agencies or industry groups.

3. Antemortem inspection of poultry to the extent deemed necessary by the Secretary of Agriculture.

4. Postmortem inspection of the carcass of each bird processed.

5. Condemnation of unwholesome or adulterated carcasses, parts, and products, and supervision over disposition of condemned material.

6. Approved labeling, including application of inspection legend, of all containers of product passed as wholesome and unadulterated.

7. Official supervision of all sanitation facilities and practices in plants under Department of Agriculture inspection; inspection to be withheld from plants not complying with such regulations as may be promulgated by the Secretary of Agriculture.

8. Movement of uneviscerated poultry carcasses (New York dressed poultry) outside the plant where slaughtered only as authorized by and under rules and regulations prescribed by the Secretary of Agriculture.

9. Prohibition of various actions which would circumvent the intent of the law; injunction proceedings and penalties for violations.

10. Maintenance of records for 2 years on the receipt, delivery, sale, movement, or disposition of poultry or poultry products in interstate or foreign commerce or in a designated area.

11. Exemptions for (a) producers who sell poultry directly to household consumers or restaurants, hotels, and boarding houses for use in their own dining rooms or in the preparation of meals for sale direct to consumers only, provided that such producers buy or sell no poultry products other than those produced from poultry raised on their own farms; (b) retail dealers who cut up ready-to-cook poultry for sale directly on the premises to retail consumers; (c) other persons as deemed practicable until but not after July 1, 1960; and (d) persons processing poultry as required by recognized religious dietary laws, to the extent determined necessary by the Secretary of Agriculture to avoid conflict with such requirements while still effectuating the purposes of the act.

12. Regulation of imported slaughtered poultry or parts or products thereof.

13. Exemption of poultry and poultry products, insofar as regulated by the act, from the provisions of the Federal Food, Drug, and Cosmetic Act.

14. Cooperation by the Secretary of Agriculture with other branches of government and with State agencies in carrying out the provisions of the act.

15. Application of the act after January 1, 1958, to persons applying for Department of Agriculture inspection under the act and meeting all requirements; mandatory application of the act beginning January 1, 1959.

### **Problems Remain for States**

After the new Federal law goes into effect, however, State and local agencies will still have major responsibilities for effective poultry hygiene programs.

1. The Department of Agriculture service will be provided only in processing plants; foodborne disease is often caused by mishandling of products during local distribution and in retail establishments.

2. Approximately 1,000 interstate processing plants will have Department of Agriculture service by 1960 under the new law, but there are about 2,500 intrastate plants. Some of the latter may be designated to come under the Federal law a few years from now, but the majority will remain a responsibility for State and local agencies and could become a dumping ground for diseased flocks, unless effective State and local programs are developed and maintained.

3. Certain exemptions are permitted under the Federal act which could result in the delivery of significant quantities of uninspected poultry directly to hotels, restaurants, and boarding houses. State and local ordinances and regulations will be required to prevent such deliveries.

4. Irrespective of Federal inspection programs, State and local health departments have basic responsibility for investigating foodborne disease outbreaks attributed to poultry and poultry products and disease outbreaks among poultry plant employees, and for corrective and preventive measures.

5. Many of the public health problems associated with the processing, distribution, and consumption of poultry require research and related field investigations by health department personnel, who can plan and carry out studies correlating all essential factors.

#### Summary

Current methods of production and distribution of poultry and poultry products pose health and consumer problems which emphasize the need for effective, uniform poultry hygiene programs. These programs should include antemortem and postmortem inspection of poultry for wholesomeness, and supervision of sanitation in the processing and distribution of poultry and poultry products. Continuing research and field investigations will be needed to delineate health hazards associated with the processing and consumption of poultry, and to develop more effective health and consumer safeguards.

The Federal Government can provide substantial assistance to the States in poultry hygiene. The Public Health Service develops program guides and training aids, carries out and supports research and investigations, conducts training, and provides technical assistance with respect to State and local poultry sanitation. The Food and Drug Administration inspects processing plants which ship interstate, and poultry and poultry products in the channels of interstate commerce. The U. S. Department of Agriculture now provides a voluntary, industry-financed poultry inspection service; Congress has enacted a law to provide mandatory Department of Agriculture inspection in all poultry processing plants engaged in interstate commerce. But in the final analysis, State and local governments are confronted with a large part of the responsibility for establishing and maintaining effective, uniform poultry hygiene programs.

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# **Home Safety Activities**

Increasing numbers of State and local health departments are recognizing that the prevention of accidents in the home is a matter for their concern.

Solution in their 1956 Home Safety Inventory, is based on a comparison with a survey undertaken by the American Public Health Association in 1955.

Only a very small percentage of the health departments consider their present programs adequate, but the wide variety of activities reported by different departments reveal a potential for extensive developments in the future.

Activities mentioned, in order of descending frequency, include assisting other groups in planning their programs, inservice training for their staffs, showing films, releasing news to the press, meetings, coordinating various programs within an area, exhibits, radio and television programs, workshops, institutes and conferences, demonstrations, research, inspections for hazards, surveys for injuries, and courses for baby sitters.

A most encouraging trend, the National Health Council said, is the extent to which local health departments are reaching directly into homes. Furthermore, almost all activities are directed mainly to the family as a whole. Two-thirds of all health units reporting indicated that their activities were part of established long-range programs.

A healthy trend is evident, the council affirmed, in the degree to which health units are cooperating with other organizations, and in the emergence of the health department as a resource in home safety.

The Home Safety Inventory revealed several weaknesses in health department programs. Few were found to be directed specifically to preschool children and the aged, in whom accidents take their largest toll. Perhaps the greatest defect, the council said, is that most programs were determined by the program directors' felt needs or by a prescribed pattern rather than by the actual needs in the community.

The council's report concludes that "the need for positive leadership in home safety on the community and State level is a definite 'must.' Because of the health departments' awareness of the problem, the skill of their technical personnel, and their resources as an official agency, they are in a unique position to provide leadership and direction in preventing accidents in the home."