



Michigan Department of Agriculture

Food and Dairy Division

Annual Report
Fiscal Year 2010

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Food and Dairy Division

2010 Annual Report

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Introduction

Fiscal Year 2010 was an important year to sharpen our focus on the decade ahead, and examine the important role that the Food and Dairy Division will play in advancing the mission of the Michigan Department of Agriculture (MDA). Our staff is actively engaged in discussions at the federal level on how to integrate the collective federal, state and local food safety resources to better address existing and emerging food safety issues. It is clear there are opportunities to build a more efficient system to address national problems, while continuing to keep our eye on Michigan-specific issues.

Integration has also become an important part of our state effort as we take a broad-based look at food safety from production right through to the consumer. A good example has been the *Salmonella* Enteritidis issue in eggs. A major recall, along with new federal standards, has caused us to take a more comprehensive look at who regulates what and how.....questions that make it clear that our food safety system has room for more clarity and focus for the myriad of agencies involved in keeping food safe.

One of the most interesting policy challenges has been the balancing of new food and agriculture business opportunities with our critical public health mission. This requires us to work with partners on the evaluation of risk, the public policy impacts on individual decision-making, and the assessment of risks and benefits. FY10 brought us the opportunity to explore these issues with the convening of a workgroup to evaluate the concept of a Cottage Food Law for Michigan. Within two months the workgroup developed language, the legislature passed it, and the Governor signed it into law. Michigan is already seeing the impact of the law as many new small food businesses have been started.

As we move into the next decade of continued budgetary and policy challenges, it will be important for us to continue to foster partnerships and collaboration with our public and private sector partners. We cannot succeed in our mission without our federal and local health department partners, nor our sister agencies. We cannot succeed without a concerted effort from the private sector in identifying risks and resolving issues without the need for continuous regulatory intervention. And we can't succeed without the public holding us to high standards -- standards to which we must also hold ourselves.

As we forge ahead, improving and integrating our food safety system, and focusing our resources on our critical mission, we will continue to value each and every partner. Thank you for the role you play in helping us maintain an even balance and keeping our eye on the ball.



Katherine Fedder, Director
Food and Dairy Division

Part A – Food Safety and Inspection Program Summary

Assuring a safe and wholesome food supply is an important part of Michigan's \$71.3 billion food and agriculture industry. Michigan produces over 200 commodities on a commercial basis, making the state second nationally in agricultural diversity and providing a strong and varied portfolio for our food processing industry. The food processing industry alone has a total economic impact of nearly \$25 billion, and employs nearly 134,000 workers.

Food safety continues to be a concern for our nation. The Centers for Disease Control and Prevention (CDC) estimates that each year roughly one out of six Americans gets sick, 128,000 are hospitalized, and 3,000 die from foodborne diseases. Based on 2010 population estimates, foodborne illness strikes 1.65 million Michigan citizens each year, at a cost of up to \$4.87 billion.

Michigan's food service establishments, grocery and convenience stores, food processors, and food warehouses are regulated by the Food Safety and Inspection Program of the Food and Dairy Division (FDD), in partnership with Michigan's local health departments. FDD staff works with a variety of food industry, regulatory, consumer, and academic partners to assure the food produced, distributed, and sold in Michigan is safe. By working closely with these partners, FDD has been able to identify and resolve public health issues relating to food safety in a timely manner.

In addition to assuring a safe and wholesome food supply, Michigan Department of Agriculture (MDA) and local health department food inspectors play a key role in assuring a robust, growing industry. Although the overall number of food establishments has been stable for the past five years, approximately 2,500 new food establishment licenses are issued each year in Michigan. These range from grocery stores and restaurants to small on-farm and specialty food processors and larger processors who distribute their food products worldwide.

Food inspectors assist the owners of these new businesses before, during, and after the licensing process, by giving advice and guidance on building design and processing plans; reviewing labels and standard operating procedures to assure food safety compliance; explaining state and federal regulatory requirements; and connecting new business owners with the resources they need from local health departments, zoning officials and other state departments. Food inspectors also provide marketing resources to new business owners that are available through MDA's Office of Agriculture Development and the Michigan State University (MSU) Product Center. This assistance helps new businesses get off to a great start, which directly translates to new jobs and a stronger economy for Michigan.

I. Food Establishment Evaluation

Approximately 49 MDA field staff conducted regular evaluations of grocery and convenience stores, food processors, farmers' markets, temporary and fair food operations, and food warehouses, ensuring a safe food supply and informing consumers of recalls and other foodborne illness outbreaks. MDA staff performs plan reviews; conducts evaluations; processes license applications; takes enforcement actions; investigates complaints; collects food samples; and responds to fires, power outages, recalls and other emergency situations. The division also works closely with various industry segments, such as grocers, food processors (including commodities such as fruits, vegetables, shellfish, wine, cider, honey, venison, maple syrup, beverages, leafy greens, bakeries, etc.), egg producers, growers, and farmers market operators. Other programs include conducting Food and Drug Administration (FDA) and United States Department of Agriculture (USDA) contract evaluations, registration and evaluation of bottled water manufacturers, and providing certificates of free sale for firms exporting foods around the world.

Accomplishments and Projects

During FY10 the Food Section worked to improve food safety in three major areas: engaging stakeholders; shaping national strategy; and building organizational efficiency.

Engaging Stakeholders

- **Food Law** - A food law steering committee and four subcommittees were formed to explore possible updates to Michigan's Food Law. A consensus update proposal is expected to be ready for legislative consideration in early 2011. Major focus areas included: adoption of the 2009 FDA Model Food Code, passage of the Cottage Food Law, developing improved small business and local foods regulatory approaches, and updating Michigan's egg safety law.

Michigan's Cottage Food Law Encourages Food Entrepreneurship

The entrepreneurial spirit and opportunities available in the food industry have been especially apparent in the response to Michigan's Cottage Food Law, P.A. 113 of 2010. Under the Cottage Food Law, non-potentially hazardous foods that do not require time and/or temperature control for safety can be produced in a home kitchen for direct sale to customers at farmers markets, farm markets, roadside stands, or other direct markets. The products can't be sold to retail stores, restaurants, over the Internet, by mail order, or to wholesalers, brokers or other food distributors who resell foods. Selling directly to consumers under the Cottage Food Law provides an opportunity for new, small scale food processors to "test the waters" and see if operating a food business is the right fit for them, and could lead to full-scale, licensed food processing businesses for many cottage food businesses in the future.

Shaping National Strategy

- **National Food Safety Integration Efforts** - MDA participated in the FDA 50 state food safety conference aimed at making significant progress in integrating food safety nationally.
- **FDA Manufactured Food Standards** - MDA received an audit of its self-assessment in 2010. MDA is also participating in this evolving effort to improve the manufactured foods regulatory standards assessment and audit program.
- **RRT Grant** - Through our existing rapid response team (RRT) grant, MDA is working with other RRT states and FDA to develop a variety of materials that can be used to improve national consistency in food safety emergency response.
- **CIFOR** - MDA participated in the Council to Improve Foodborne Illness Outbreak Response (CIFOR) and has used the national document recently released to develop a state guide for improving multi-jurisdiction foodborne illness response among local health departments and state agencies.
- **AFDO** - MDA attended the Association of Food and Drug Officials (AFDO) meeting, and brought back resources and materials to improve Michigan's food safety efforts. MDA was also able to invite presenters from the AFDO meeting to speak at industry meetings in Michigan to share their knowledge and expertise.
- **CFP** - MDA participated in the national Conference for Food Protection (CFP) where the FDA Model Food Code is updated. Michigan regularly adopts this code by reference in the Michigan Food Law.

Building Organizational Efficiency

- **MI-Inspector Program** - MDA is in the process of replacing E-Inspector with a new inspection system, MI-Inspector. This project will modernize several systems, and improve MDA's ability to manage and monitor its programs. The system will be integrated with the department's licensing program.
- **Quality Processing Improvement Project** - A variety of improved inspection forms, guides and industry/regulator reference materials were developed to improve the food safety focus at Michigan's licensed processing establishments. Staff training and implementation will be conducted in 2011.
- **Emergency Response** - Significant staff training in use of the incident command system was accomplished throughout the year, with the goal of building several trained incident command response teams. Staff participated in an emergency exercise that focused on building capacity among partners at multiple levels.
- **Environmental Sampling at Processing Plants** - Under contract with FDA, MDA conducted environmental sampling at 10 Michigan processing plants to determine if bacterial contamination was present. Several environmental contamination issues at processing plants were also investigated and resolved. MDA will continue to build its environmental sampling capacity across the state in conjunction with FDA contract inspections during FY11.
- **FDA Voluntary Retail Program Standards** - A self-assessment against the 2007 national standards was completed. Michigan currently meets three of nine standards.
- **Food Policy Manual** - An updated policy manual was completed and a companion field guide containing various reference documents was started, to standardize policy implementation and provide field staff easier access to policy information.
- **Variance HACCP Guide** - Staff developed a variance HACCP guide to assist industry in conducting complex processing operations in retail food establishments. The guide will be distributed in 2011.

Workload

Licensed Establishments	2009	2010
Retail Food Establishment.....	13,695	13,688
Extended Retail Food Establishment	967	976
Wholesale Food Processor	625	646
Limited Wholesale Food Processor.....	963	1,102
Food Warehouse	1,039	1,054
Mobile Food Establishment	105	104
Mobile Food Establishment Commissary	48	65
State/County Fair Temporary.....	1,049	977
Special Transitory Food Unit	53	47
Temporary Food Establishment	57	53
Total Licensed Establishments	18,601	18,712
Number of licensed establishments per FTE* assigned to conduct evaluations	380	382

*Full Time Employee

Workforce

	MDA Actual	FDA Recommended**
Number of FTEs assigned to conduct food evaluations (all types)	49	66-75
Number of FTEs involved in technical support, management and administrative support	27	NA
Total number of FTEs	76	NA
Number of standardized trainers	5	NA

**FDA recommended number from FDA Voluntary Program Standard

Program Output

1. Evaluations (Inspections)

Evaluation Type	Evaluations Conducted	Evaluations Due
Routine	10,825	14,821
Ad-hoc^	4,253	4,253
Follow-up	2,115	2,137
Fair vendors.....	977	977
Shellfish	24	24
Grand Total.....	18,194	22,212
Total product samples tested.....		1,142
FDA import samples		30
Environmental samples		1,080
Average number of evaluations per FTE assigned to conduct food establishment evaluations		371

^Ad hoc evaluations: Includes evaluations for new establishments, evaluations associated with complaints, and any other evaluations initiated by the inspector outside of routine or follow-up evaluations.

2. Plan Review

Number of plans received for review	201
Number of plans approved	201

3. Investigations

Consumer complaints investigated (all types)	1,225
Illness-related	166
Non-illness related.....	1,059

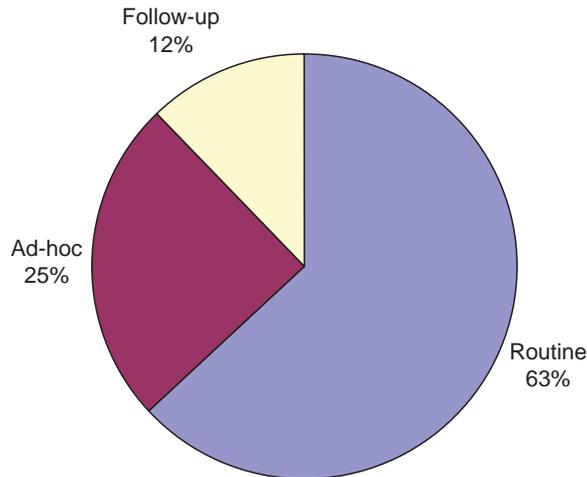
4. Enforcement

Enforcement Letters	201
Compliance Reviews	11
Consent Agreements/Administrative Fines.....	66/\$58,762
Prosecutions/Fines	1/\$0
Seizures.....	705 (1,768,895 lb.)
Dollar Amount of Seized Product.....	\$2,890,337
Informal Hearings	8/\$1,080
Re-inspections/Fees.....	150/\$7,627

5. Miscellaneous

Certificates of Free Sale	1,709
Freedom of Information Act Requests	84
Bottled Water Registrations	1,249

Michigan Food Program Evaluations by Type



Funding Sources

	FY09	FY10
Fees.....	\$2,537,204	\$2,777,141*
Federal/Special Revenue funds	\$425,284	\$636,243**
General fund.....	\$6,007,930	\$6,065,735
Total program revenue.....	\$8,970,418	\$9,479,119

*Increase in fees from FY09 due to timing of collection

**Increase in federal funds due to USDA Country of Origin Labeling (COOL) contract

General Statistics

Occurrence per 100,000 population

Number of fixed food establishments*	173
Food related complaints	12.1

Program dollars spent per

Licensed establishment.....	\$507
Michigan citizen (Total Program Revenue).....	\$0.94
Michigan citizen (General Fund).....	\$0.60
Michigan citizen (License Fees/Others)	\$0.34

*Fixed food establishments include retail food stores, food processors, and food warehouses.

Michigan population - 2006 estimate, U.S. Census Bureau

II. Food Service Establishment Evaluation

Local Health Department Food Service Program

Food safety in Michigan's restaurants is a collaborative effort among MDA and the state's 45 independent local health departments. MDA provides statewide program policy, direction, consultation, and training services to local health department sanitarians. Local health departments perform plan reviews, conduct evaluations, process license applications, take enforcement actions, investigate complaints, and conduct foodborne illness outbreak investigations. Local health department performance is evaluated by MDA every three years in conjunction with the "Michigan Local Public Health Accreditation Program." The accreditation program helps to assure accountability for the more than \$8.4 million in state funds utilized for the Food Service Program. With the addition of locally set fees and local tax contributions, local health departments operate a \$29.5 million overall food service program. This means that for every \$.28 spent in state funds, local health departments deliver \$1 worth of programs and services to Michigan residents.

In Michigan, almost half of all adults (46 percent) are restaurant patrons on a typical day. In an average month, 78 percent of all households use some form of food carryout or delivery service.

Accomplishments

Major accomplishments of the Food Service Program in FY10 include:

- Fifteen local health departments completed successful accreditation reviews with a 99 percent degree of compliance with program standards.
- The Food Service Program's FDA-certified trainers standardized or restandardized 17 local health department trainers to promote consistent and focused inspection for food service establishments across the state.
- MDA's Food Service Program staff provided over 1,000 hours of training to local health department inspectors.

Projects

- **Local Health Accreditation** - A guidance document was developed to assist those local health departments that are voluntarily using the recently added self-assessment accreditation option.
- **Manager Certification** - Food service consultants continued to work with local health departments to implement the requirement for a certified manager at most food service establishments.
- **FDA Voluntary Retail Standards** - Food service consultants enrolled 10 local health departments to meet national food safety program standards and helped several agencies obtain grant funds to support their efforts to meet these standards.
- **Plan Review** - A workgroup began an effort to update the statewide plan review documents related to Special Transitory Food Units (STFUs).
- **Michigan's Smoke Free Air Law** - MDA food service consultants worked with the Michigan Department of Community Health and local health departments to implement the state's new non-smoking law in food service establishments. Michigan's Smoke Free Air Law, which took effect May 1, 2010, bans smoking in all Michigan restaurants, bars and businesses (including hotels and motels). The law allows exemptions for some cigar bars, tobacco specialty retail stores and casinos that meet certain requirements.

The following information was reported by local health departments (LHDs) to MDA:

Workload

	2009	2010
Licensed Establishments		
Fixed Food & Mobile Commissary.....	31,702	31,890
Temporary.....	11,402	11,041
Mobile.....	455	441
Vending.....	4,020	3,785
Special Transitory Food Unit (STFU).....	720	791
Total Licensed Establishments	48,299	47,948
Number of licensed establishments per FTE* assigned to conduct evaluations		
	249	253

*FTE = Full time employee.

NOTE: See pie charts on page 9 for breakdown by local health department.

Workforce

	LHD Actual	FDA Minimum	FDA Recommended
Number of FTEs assigned to conduct food establishment evaluations (all types).....	189	201	283
Number of FTEs involved in plan review, management and administrative support	157	NA	NA
Total number of FTEs	346	NA	NA
Number of standardized trainers	62	NA	NA

Program Output

1. Evaluations (Inspections)

Establishment Type	Evaluations Conducted	Evaluations Due
Fixed food service - routine	58,400	
Mobile, Vending, STFU.....	3,983	
Sub-Total	62,383	57,971
Follow-up evaluations.....	18,299	
Temporary food service	11,041	
Grand Total	91,723	

Average number of evaluations per FTE
assigned to conduct food establishment inspections

485

2. Plan Review

Number of plans received for review

1,633

Number of plans approved

1,352

3. Investigations

Consumer complaints investigated (all types).....

3,959

Foodborne illness outbreaks (met MI definition).....

148

4. Enforcement

Administrative action (office conference, informal hearing,
formal hearing, civil fine, order)

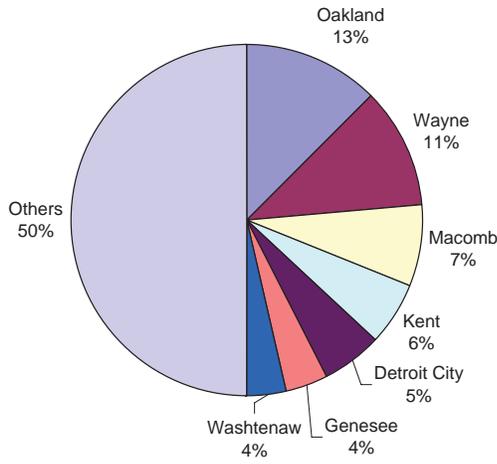
1,252

Court action (civil, criminal)

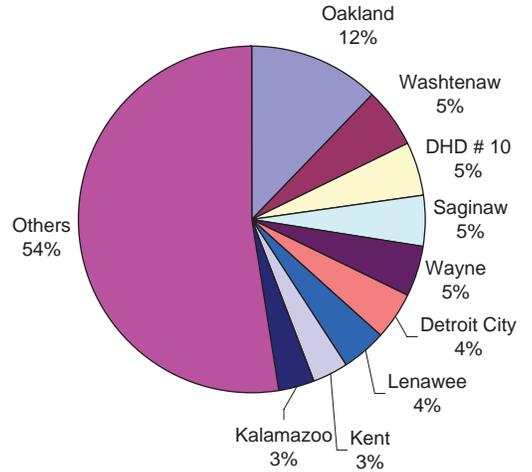
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Distribution of License Types by Local Health Department

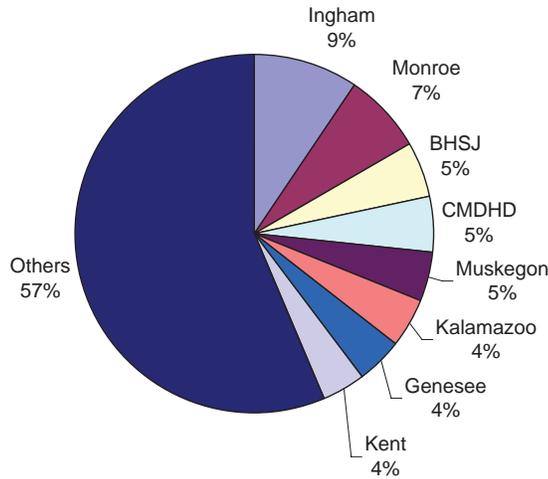
Fixed Licenses



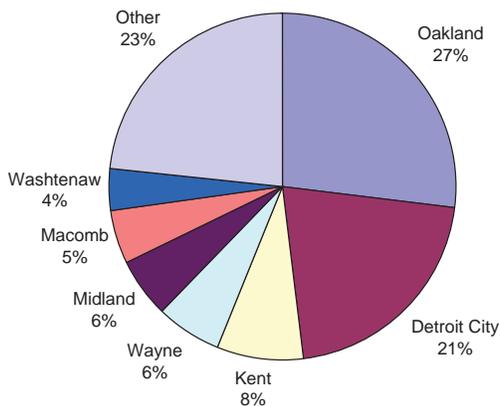
Temporary Licenses



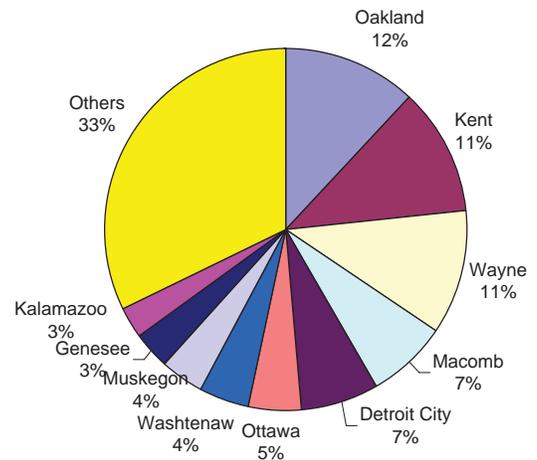
Special Transitory Food Unit (STFU) Licenses



Mobile Licenses



Vending Licenses



Funding Sources

	FY09	FY10
Fees collected by local health department.....	\$13,646,533	\$14,495,341
Local tax dollars	\$8,627,701	\$6,664,189
State dollars - local public health operations (LPHO)	\$8,268,245	\$8,424,431
Total local health program revenue	\$30,542,479	\$29,583,961

General Statistics

Occurrence per 100,000 population

Number of fixed food service establishments	316
Food related complaints.....	39
Foodborne illness outbreak investigations.....	1.5

Program Dollars Spent Per

Licensed establishment	\$802
Michigan Citizen (Total Program Revenue)	\$2.93
Michigan citizen (Fees collected by LHDs).....	\$1.44
Michigan citizen (Local tax dollars).....	\$0.66
Michigan citizen (LPHO/state dollars).....	\$0.83

Michigan population - 2006 estimate, U.S. Census Bureau

Part B – Milk and Dairy Product Safety and Inspection Program Summary

Michigan's dairy industry is the largest single segment of Michigan agriculture. Milk is the top ranked commodity in terms of cash receipts, with the dairy industry contributing about 20 percent of the total cash receipts for Michigan's agriculture industry annually. Michigan ranks 8th nationally in milk production with a \$5.9 billion impact of the state's economy. Our state's dairy farms produced approximately 8.3 billion pounds of milk in 2010.

Michigan boasts 2,200 dairy farms, including 1,931 Grade A farms and 269 manufacturing farms, which are inspected by MDA Dairy Section staff. In addition, the Milk and Dairy Product Safety and Inspection Program licenses and inspects 79 Michigan dairy processing plants and 39 other dairy facilities; and 1,563 milk hauler/samplers, milk tank trucks, and milk transportation companies. Enforcement is a strong component of the program. Law violations resulted in 91 dairy farm permit suspensions and the removal of 1,442,294 pounds of suspect milk from the market with an estimated dollar value of \$239,421.

MDA's Milk and Dairy Product Safety and Inspection Program serves the people of Michigan by: assuring a safe, high quality supply of dairy products; providing programs which help to maintain a strong, economically viable dairy industry; and ensure Michigan dairy products continue to move freely in interstate commerce; and participating, in a leadership role, with representatives of the dairy industry, universities and other government agencies in the development of policies and programs to further those aims.

In addition to assuring a safe and wholesome dairy supply, MDA dairy inspectors also play a key role in assuring growth in the state's dairy industry, to help create new jobs and strengthen Michigan's economy. Michigan's dairy industry saw the addition of five new dairy processing facilities in 2010. MDA dairy inspectors assisted these businesses, before, during and after start-up to assure that all regulatory requirements are met, and the businesses have the resources they need to succeed. Inspectors provide advice and guidance on building design and processing plans; reviewing labels and standard operating procedures to assure food safety compliance; explaining state and federal regulatory requirements; and connecting new business owners with the resources they need from local health departments, zoning officials and other state departments. Dairy inspectors also provide marketing resources to new business owners that are available through MDA's Office of Agriculture Development and the MSU Product Center. This assistance helps new businesses get off to a great start, which directly translates to new jobs and a stronger economy for Michigan.

Accomplishments

Major accomplishments of the Milk and Dairy Product Safety and Inspection Program in FY10 include:

New Value-Added Milk Processing Facilities

MDA's milk safety inspection staff continued to receive inquiries in 2010 from dairy farmers and others who are interested in starting up local, value-added milk processing facilities. These facilities include manufacturers of goat, sheep and water buffalo cheese as well as on-farm milk bottling facilities. The milk safety inspection staff works with these entrepreneurs from the initial planning stage all the way through construction and start-up. A continuing inspection program of these new facilities helps assure a smooth transition from planning to the production of safe, wholesome dairy products.

Dairy Processing Plant Expansions

MDA's milk safety inspection staff worked with several existing dairy processing facilities during their expansions in 2010. These processing plant expansions were designed to increase production capabilities and efficiencies at the various plants. MDA's milk safety inspection staff worked with plant personnel, equipment installers and builders on building design, product protection requirements and pasteurization systems. Both traditional and innovative state of the art equipment were reviewed by MDA dairy inspectors for compliance with milk safety requirements. These expansions exemplify the dairy industry's commitment to maintaining a plentiful supply of quality milk in Michigan and reinforce the reputation of cooperation for which MDA's milk safety inspection staff is known.

New Dairy Plant Slated for Michigan

MDA's milk safety inspection staff reviewed and approved plans for a new dairy plant in Coopersville. MDA staff from the Milk and Dairy Product Safety and Inspection Program and the Office of Agriculture Development were instrumental in securing the building of the new dairy plant in Michigan. Staff met with company representatives to discuss the requirements for the plant to meet the Pasteurized Milk Ordinance (PMO) and USDA milk safety standards for statewide and interstate movement of their milk and milk products. The new plant broke ground in the fall of 2010 and is expected to begin operation in 2011.

Projects

Updated Dairy Fees and Fines

Due to significant funding cuts in MDA's FY10 budget, a workgroup of stakeholders was assembled to explore options and develop a plan to address the revenue shortfall in the Milk and Dairy Product Safety and Inspection Program. The workgroup reached consensus to update dairy fees and fines to generate an estimated \$100,000 in revenue for the program, which required amendments to the Grade A Milk Law of 2001 and the Manufacturing Milk Law of 2001. The law amendments addressing the new dairy fees and fines were signed into law on March 31, 2010. In addition, MDA pledged to reduce program expenses by \$200,000 through cost saving measures and by eliminating one dairy inspector position.

The changes include:

- License fee(s) increased for all Michigan dairy licensees (including dairy plants, dairy farms, milk haulers, milk trucks, single service manufacturers, and certified industry farm inspectors).
- Dairy processing plants: License fee(s) increased based on volume of annual milk receipts.
- Dairy farms: Annual permit fee(s) increased with a portion of the fee waived if the farm's inspection program is covered by a certified industry farm inspector.
- On-site plan review: Fee established for new facilities when an on-site plan review consultation is requested.

- Re-inspections: Fee established when two or more consecutive re-inspections are required for non-compliance. The fee is \$300 for a Grade A licensee/permittee and \$150 for a manufacturing licensee/permittee.
- Positive drug residues: Fine assessed to dairy farms with a positive drug residue, in addition to paying for the value of the contaminated load. The fine is \$300 for the first offense for Grade A producers, with the fine doubling for each additional offense within a 12-month period.

Workload

Licensed Establishments	FY09	FY10
Farms	2,299	2,200
Grade A Plants.....	30	32
Manufacturing Plants (includes cheese & ice cream).....	45	47
Grade A Milk Distributors	15	15
Grade A Transfer Stations/Receiving Stations/Tank Truck Cleaning	13	15
Grade A Single Service.....	9	9
Milk Tank Trucks and Can Milk Trucks	650	626
Milk Transportation Companies	129	124
Milk Haulers/Samplers (currently licensed)	837	813
Certified Fieldpersons.....	27	31
Total Licenses.....	4,054	3,912
Labs Approved/Certified	FY09	FY10
Certified Industry Labs.....	9	10
Approved Drug Screening Sites	35	34
Certified Commercial Labs	2	2
Approved/Certified Industry Analysts.....	190	193
Number of licensed establishments per FTE assigned to conduct inspections.....	225	230

Workforce

Number of FTEs assigned to conduct dairy inspections (dairy farm, plant and other inspections, and pasteurization evaluations)	17
Number of FTEs involved in management, technical and administrative support	9
Total number of FTEs	26

Program Output

1. Inspections and Evaluations

Inspection/Evaluation Type	Inspections/Evaluations Conducted
Farm	5,499
Plants.....	232
Hauler/Sampler/Tanker.....	843
Pasteurization.....	542
USDA Survey.....	20
Total Inspections	7,136
Grade A Survey	90
Laboratory Analysts Evaluated.....	98
Laboratories Evaluated.....	6
Drug Residue Screening Sites Evaluated	25
Total milk and milk product samples taken.....	5,968
Average number of inspections per FTE assigned to conduct dairy establishment inspections.....	420

2. Investigations

Consumer complaints investigated (all types).....	26
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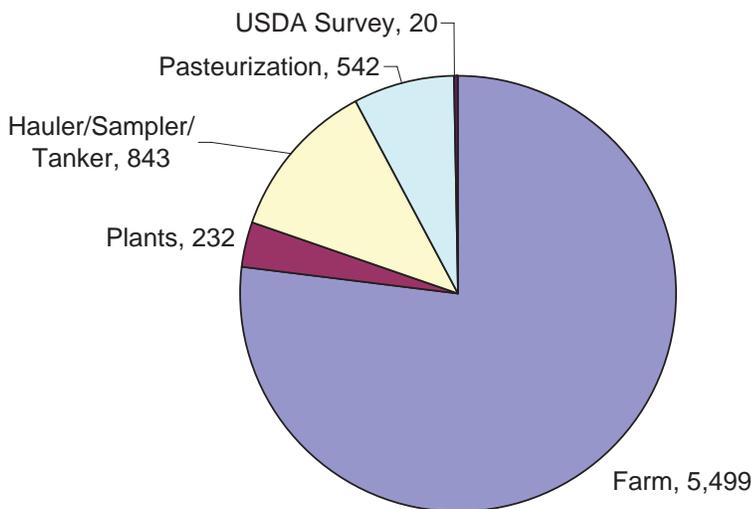
3. Enforcement

Enforcement letters	276
Informal Hearing/Compliance Reviews	12
Administrative Fines collected by MDA	\$11,380
Prosecutions.....	0
Seizures.....	5
Dollar amount of seized products.....	\$11,023
Total Permit Suspensions.....	91
Total Pounds of Contaminated Milk Disposal	1,442,294 lbs. (\$239,421)

4. Miscellaneous

Certificate of Free Sale.....	398
Freedom of Information Act Requests.....	73

Number of Inspections by Type, Performed by the Michigan Dairy Program



Funding Sources

	FY09	FY10
Fees collected by MDA*	\$52,410	\$195,860
Special Revenue Funds	\$33,100	\$34,421
General Funds.....	\$3,080,100	\$2,783,965
Total Program Revenue	\$3,165,610	\$3,014,246

* New dairy fees and fines signed into law March 31, 2010.

General Statistics

Occurrence Per 100,000 Population

Number of dairy farms	21.8
Number of dairy manufacturers	0.8

Program Dollars Spent Per:

Licensed establishment.....	\$771
Michigan citizen (Total Program Revenue).....	\$0.30
Michigan citizen (General Fund).....	\$0.28
Michigan citizen (License Fees/Other)	\$0.02

Michigan population- 2006 estimate, U.S. Census Bureau

Part C – Foodborne Illness Outbreaks and Food Recalls

Foodborne illness outbreaks, recalls and food contamination incidents caused heightened public concern in 2010 and emphasized the vulnerability of our complex, globalized and interconnected food supply. The following concerns were brought to the forefront in FY10 during foodborne illness outbreaks and food recalls that impacted Michigan citizens:

- Complex food processing systems and equipment that are difficult to sufficiently clean to eliminate pathogens from processing environments.
- Contamination of foods at the retail level by sick workers and patrons.
- Contaminated imported foods.
- Increasing workload of regulators associated with investigating illnesses caused by unlicensed firms.

The Food and Dairy Division developed new emergency response capabilities through active participation in the department's multi-disciplinary Rapid Response Team (RRT). An FDA grant supports this effort which is designed to better coordinate emergency responses of local, state, and federal food regulatory agencies. Two of the four core RRT members are Food and Dairy Division employees, including a food processing specialist and an epidemiologist.

The RRT had a successful second year that included completing multiple commodity assessments, hosting a multi-agency food and feed emergency response exercise, expanding environmental sampling capacities to detect contamination sources, and further developing multi-agency investigation teams with our fellow local, state, and federal partners. The RRT serves as a catalyst for increasingly effective department-wide food and feed emergency responses.

MDA's RRT food processing specialist conducts in-depth assessments of higher-risk food processing establishments. As food processors adopt new technologies to remain competitive in the global economy, having a food processing specialist assigned to the RRT allows the division to better assess how these increasingly complex conditions impact food safety.

MDA's RRT epidemiologist has improved information sharing between public health and food regulatory agencies, and provided surge capacity to assist both state and local agencies during outbreak investigations. This has resulted in identifying potential sources of contamination more quickly so timely control measures can be implemented and additional illnesses prevented.

I. Overview of Foodborne Illness Outbreak Results

Investigations of foodborne illness outbreaks are typically multi-disciplinary efforts involving sanitarians, food regulators, communicable disease specialists, epidemiologists, and laboratory staff from multiple agencies.

Under Michigan's Public Health Code, PA 368 of 1978 (MCL 333.2433), local health departments are required to investigate the causes of disease. The Michigan Food Law of 2000, sec. 3129(2), requires local health departments to notify MDA of foodborne illness outbreaks they are conducting. MDA uses foodborne illness data to:

- Investigate emerging threats
- Illustrate trends
- Ensure that accurate reports are reflected at the state and national level

A total of 148 events meeting the Michigan definition of a foodborne illness outbreak were reported by local health departments to MDA in FY10. Final reports were received for 96 percent of reported potential foodborne illness outbreaks. Additionally, accreditation findings show 94 percent of local health departments were found to respond to a foodborne illness complaint within 24 hours of notification, and 100 percent met foodborne illness investigation procedure requirements relating to documentation and reporting of foodborne illness outbreaks.

Note: Accreditation minimum program requirement reviews are based on a summary of random sample evaluations, and are not an evaluation of every foodborne illness complaint received.

Although ill individuals in reported outbreaks shared common food sources, it was often not possible to rule out other routes of illness transmission, particularly in smaller incidents. Of the 148 reported foodborne illness outbreaks, local health departments identified a total of 21 incidents as confirmed or probable foodborne illness outbreaks after complete investigation. This number is low due to indeterminate conclusions or lack of conclusions stated in final reports.

Total # of incidents reported to MDA.....	148 (1,070 illnesses)
Total # of incidents identified as confirmed or probable foodborne illness outbreaks.....	21 (469 illnesses)
Median number of illnesses reported per confirmed or probable foodborne outbreaks.....	18
Leading causative agents of foodborne outbreaks reported to MDA:	
<i>Salmonella</i> species.....	3
Norovirus.....	2
<i>Staphylococcus aureus</i>	2
<i>Campylobacter jejuni</i>	2

Seven percent of incidents reported to MDA identified a causative agent.

Foodborne Illness Outbreaks Caused by Norovirus

National data recently released by the CDC identified norovirus as the leading cause of foodborne illness in the U.S. Norovirus continues to be a public health challenge in multiple settings throughout Michigan. The Michigan Department of Community Health (MDCH) reports that 139 norovirus outbreaks were reported by local health departments in 2010. Of the 139 outbreaks, only nine outbreaks (6 percent) were subsequently categorized as restaurant/food related. Healthcare settings and schools reported a greater proportion of outbreaks. Food continued to be a high-risk vehicle of norovirus transmission. Officials from both MDA and MDCH were asked by the Food Marketing Institute to participate in a review of the norovirus guidance for retail food industry. This document can be found at http://www.fmi.org/docs/supersafemark/Norovirus_Info_Guide.pdf. This partnership illustrates government-based subject matter experts and industry working together to protect the health of consumers.

1. Noteworthy Incidents from FY10

Detection of Contaminated Food Ingredients

In January 2010, FDA informed MDA of a Reportable Food Registry (RFR) alert it had received from a California manufacturer regarding Salmonella contamination in raw soy grits received from a Michigan firm. The RFR program requires industry to report to FDA when there is reasonable probability that an article of food will cause serious adverse health consequences. A joint FDA/MDA Food and Dairy Division inspection, which included environmental sampling and finished product sampling, was conducted. A high number of positive environmental samples were found, with the genetic pattern matching that of the finished product. MDA actions included seizure of all on-site finished product and the initiation of a voluntary recall, and the firm implemented a corrective action plan to ensure adequate process control was established.

Kalamazoo River Oil Spill

In late July 2010, Michigan experienced a pipeline break near Marshall, which spilled more than 819,000 gallons of oil into a creek that drained into the Kalamazoo River. Food and Dairy Division staff was part an intensive MDA-wide response to the event that spanned several weeks. FDD focused efforts on ensuring contaminated surface water did not adulterate foods entering the commercial food supply and providing guidance to non-commercial gardeners in the impacted areas. MDA used an Incident Command System (ICS) which enabled the department to more quickly and systematically manage response actions, track costs, generate reports, coordinate activities and communicate with stakeholders.

2. Noteworthy Outbreaks from FY10:

Norovirus Outbreak Associated with an MDA-Regulated Facility, January 2010

A norovirus outbreak occurred among three separate groups within the same weekend. The LHD investigation revealed that all of the groups consumed products made by a single bakery in Southwest Michigan – indicating a common source outbreak. The LHD filed the complaints with MDA, and staff from both the LHD and MDA inspected the facility. During the initial inspection, a number of critical and non-critical violations were noted. Violations mainly focused on the Person-In-Charge not knowing how to prevent foodborne diseases, not understanding personal hygiene of food employees, and failing to exclude ill employees for at least 24 hours after symptoms ceased. MDA used this as an opportunity to educate the facility about appropriate control measures for when employees are ill and for assuring employee personal hygiene, to help prevent reoccurrence.

Campylobacter Outbreaks Associated with Raw Milk, March - June, 2010

Over a four month period in 2010, more than 25 cases of Campylobacter linked with consumption of raw milk were identified in two separate outbreaks in Michigan. MDA staff worked closely with the U.S. Food and Drug Administration, local health departments, the Michigan Department of Community Health, and the dairy farmers involved. MDA and partners investigated reported cases of illness, traced products back to their sources, conducted inspections, and collected and tested samples. Investigations showed an epidemiologic link between illness and the consumption of raw milk. Michigan law does not strictly prohibit the distribution of raw milk to cow share members.

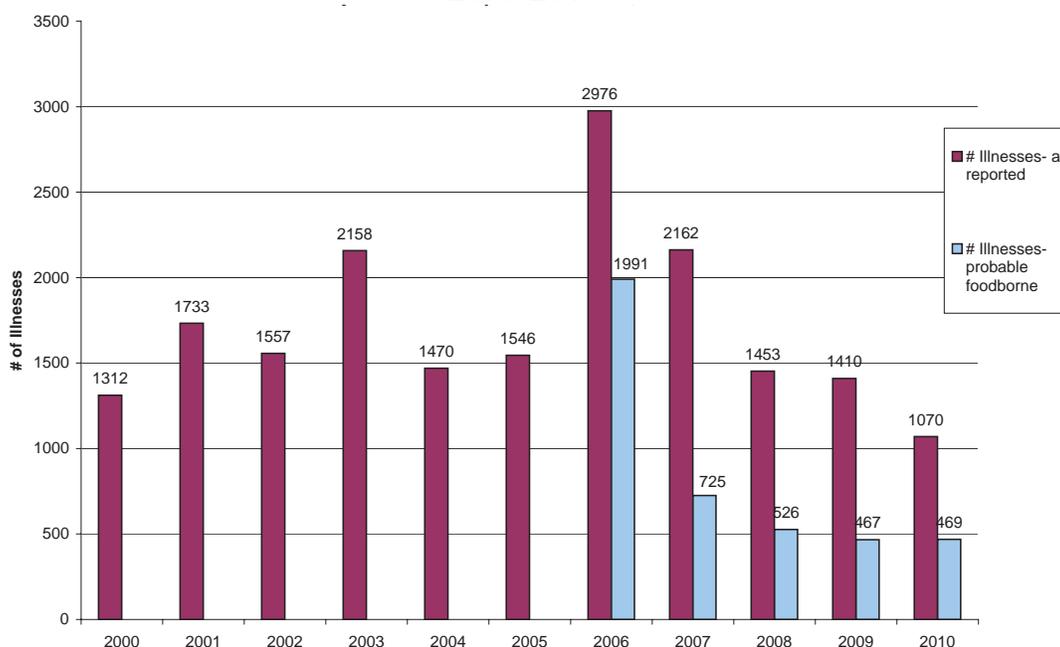
Multistate E. coli O145 Outbreak Associated with Romaine Lettuce, April 2010

An outbreak of an unusual strain of E. coli sickened people in three states. Twenty-five Michigan residents were affected, a number of whom were college students. Illnesses were linked to the consumption of romaine lettuce. Traceback of the implicated product indicated that it had been processed at a facility in Ohio, but grown in Arizona. Laboratory analysis of a package of the implicated product was found to be contaminated with the same strain of bacteria. MDA staff worked with local health departments, the Michigan Department of Community Health, FDA and other involved states to coordinate investigative activities, which resulted in a nationwide recall of the product. MDA and partners responded rapidly to identify cases, traceback efforts, and share information with local, state and federal partners - all of which accelerated the implementation of control measures at the processor and farm levels.

Staphylococcus aureus Outbreak Associated with Catering Facility, June 2010

An outbreak caused by both *Staphylococcus aureus* and *Bacillus cereus* intoxications in a West Michigan county was found to be associated with the consumption of potato salad produced by an unlicensed caterer. Eleven people became ill after consuming the food that was prepared at the caterer's home, further prepared at a second unlicensed location, and then served at a party. The LHD investigation found that no temperature logs were maintained during any of the preparation, cooling, cold holding, and/or transport of the foods served. Additional questioning revealed the caterer prepared the food with bare hands.

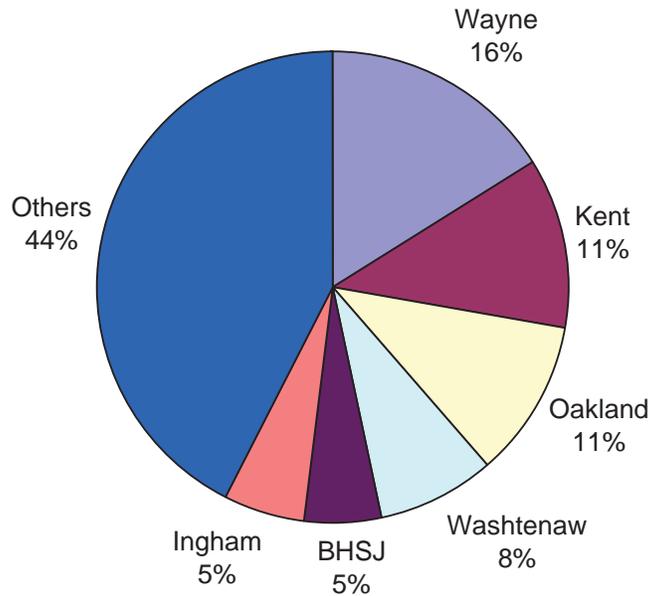
Ten-Year Summary of Foodborne Illness Outbreaks, by Number of Reported Illnesses 2000-2010



Note: Statistics prior to 2002 were based on the calendar year rather than the fiscal year.

Foodborne Illness Outbreaks by Local Health Department

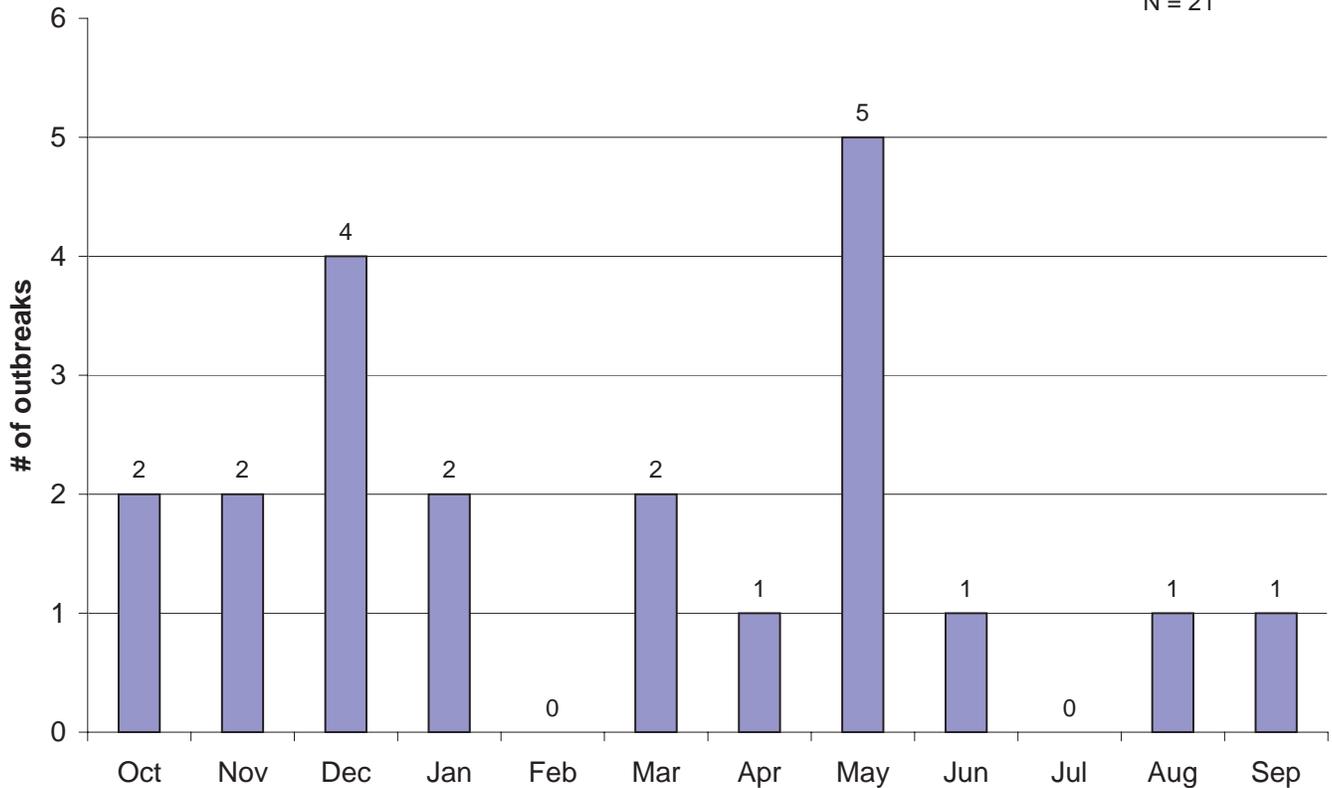
N= 148



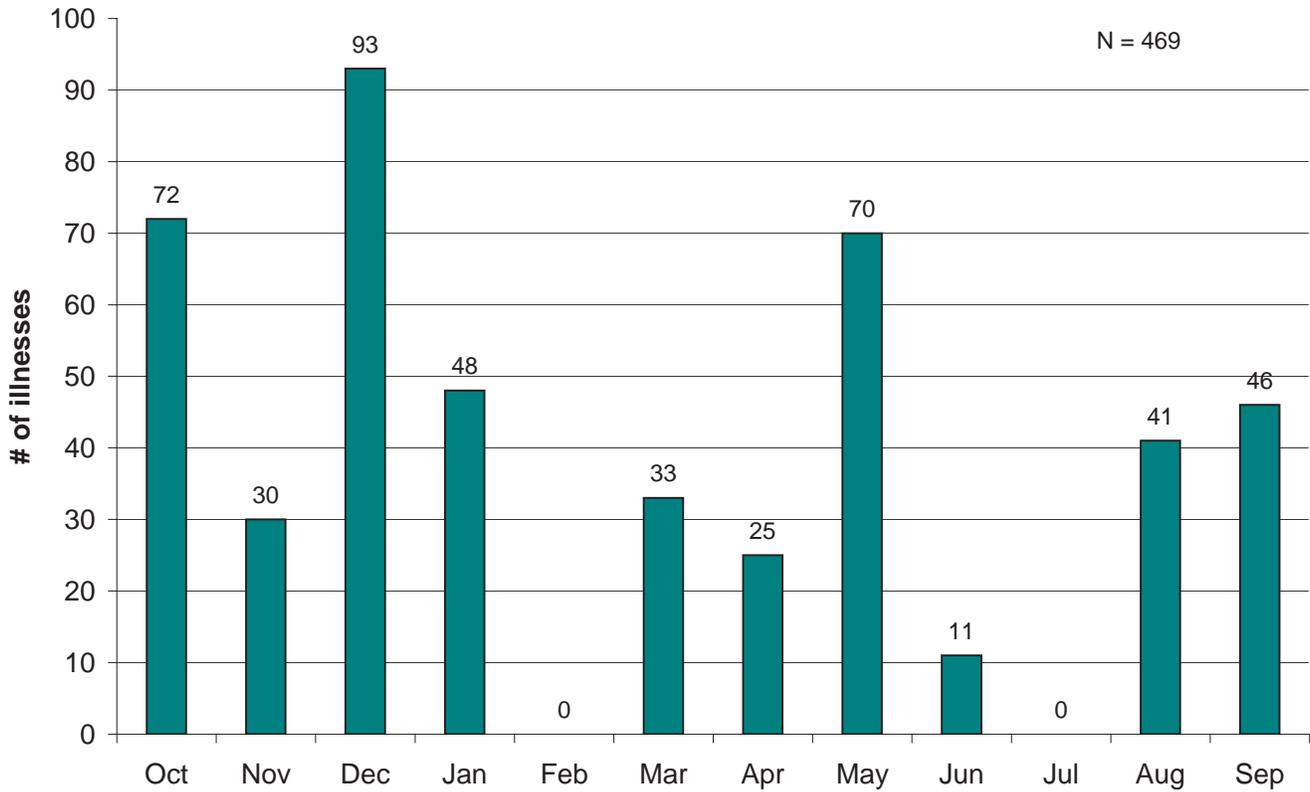
Note: Data cannot be interpreted as an indicator of the relative safety of foods in any jurisdiction. Health departments with larger populations would be expected to have larger numbers of outbreaks.

Probable Foodborne Illness Outbreaks, Number of Events, by Month

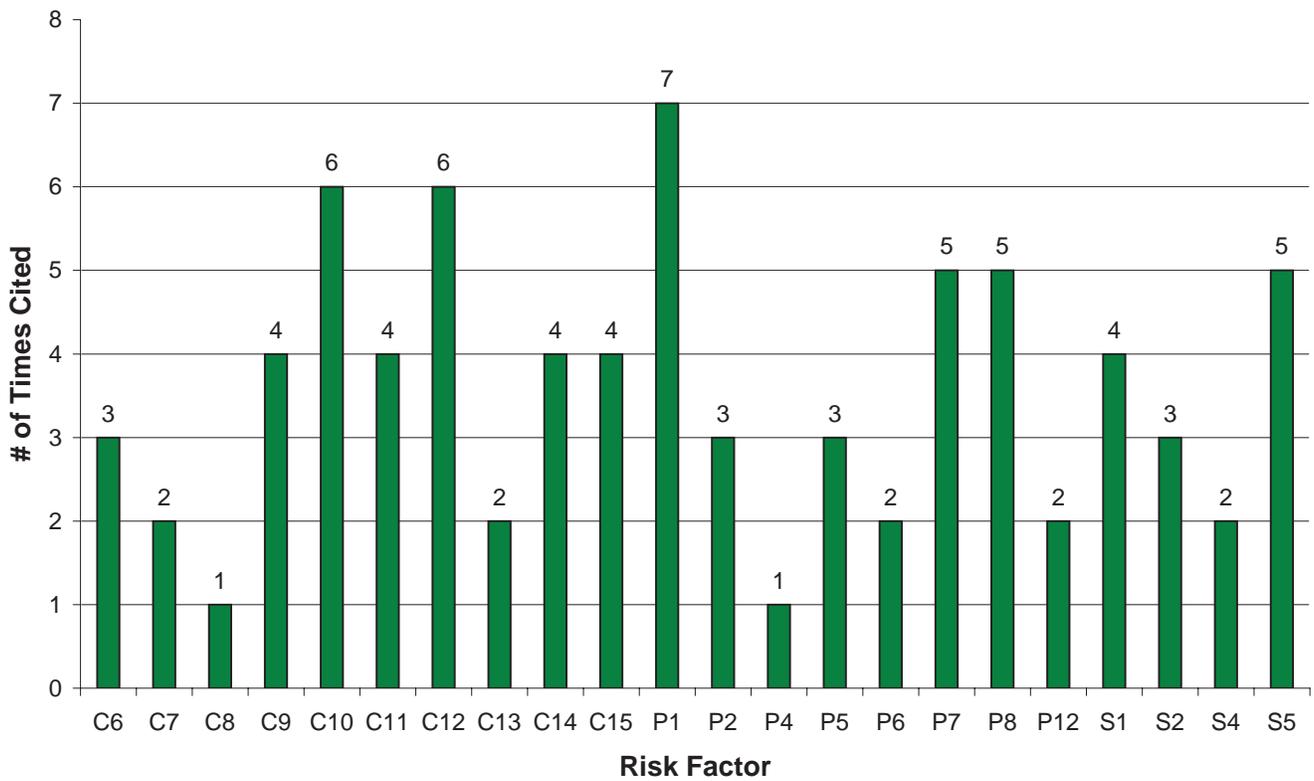
N = 21



Probable Foodborne Illness Outbreaks, Number of Illnesses, by Month



CDC Risk Factors Reported by MDA and Local Health Departments, Fiscal Year 2010



Key: Partial list of risk factors, from CDC form 52.13

C6	Contaminated raw product- food was intended to be consumed after a kill step
C7	Contaminated raw product- food was intended to be consumed raw or undercooked/processed
C8	Foods originating from sources show to be contaminated or polluted
C9	Cross-contamination of ingredients
C10	Bare-hand contact by handler/worker/preparer who is suspected to be infectious
C11	Glove-hand contact by handler/worker/preparer who is suspected to be infectious
C12	Other mode of contamination (excluding cross-contamination) by a food handler/worker/preparer
C13	Foods contaminated by non-food handler/worker/prepared who is suspected to be infectious
C14	Storage in contaminated environment
C15	Other source of contamination
P1	Food preparation practices that support proliferation of pathogens (during food preparation)
P2	No attempt was made to control the temperature of implicated food or the length of time food
P4	Improper cold holding due to malfunctioning refrigeration equipment
P5	Improper cold holding due to an improper procedure or protocol
P6	Improper hot holding due to malfunctioning equipment
P7	Improper hot holding due to improper procedure or protocol
P8	Improper/slow cooling
P12	Other situations that promoted or allowed microbial growth or toxic production
S1	Insufficient time and/or temperature control during initial cooking/heat processing
S2	Insufficient time and/or temperature during reheating
S4	Insufficient or improper use of chemical processes designed for pathogen destruction
S5	Other process failures that permit the agent to survive

II. Food Recalls

***Salmonella* Montevideo in Black and Red Pepper in Italian–style Meats, Spices, etc., January-April, 2010**

A nationwide outbreak involving 242 laboratory-confirmed cases in 44 states (including Michigan) and the District of Columbia was linked to black and red pepper used as ingredients in various products. One manufacturer in Rhode Island recalled over 20 Italian-style deli meat products, totaling 1,263,754 pounds. FDA and state authorities conducted extensive sampling of the imported pepper and the environment at the Rhode Island manufacturer and two East Coast pepper suppliers and found the outbreak strain of *Salmonella* in black and red pepper imported from three different nations. The investigation resulted in the recall of over 120 products nationwide and sparked an ongoing federal reassessment of existing controls on imported spices.

Hydrolyzed Vegetable Protein – *Salmonella* Tennessee, February-May, 2010

Salmonella Tennessee was found during industry sampling of hydrolyzed vegetable protein (HVP) manufactured by a company in the western U.S. This ingredient is used as a flavor enhancer in a wide variety of processed food products, and is often blended with other spices to make seasonings that are used in or on foods. The discovery resulted in a cascading series of at least 171 recalls, spread out over several weeks, of food products that used the contaminated ingredient. No illnesses were ever linked to this contamination. The early alert by industry through FDA's Reportable Food Registry (RFR), and the resulting recalls, may have had a direct effect on preventing illness.

Whole Shell Eggs – *Salmonella* Enteritidis, May-October, 2010

A multistate outbreak of some 1,800 illnesses between May 1 to October 15, 2010, was associated with contaminated shell eggs. FDA's new egg safety requirements took effect July 9, 2010. Two producers in Iowa were implicated as the sources of the eggs, and the event resulted in recalls of 550 million eggs nationwide, which was the largest recall of shell eggs in U.S. history.

Infant Formula Recalled Because of Potential Contamination with Insect Parts, September, 2010

A Michigan food processing facility recalled powdered infant formula due to the possibility that some products could be contaminated with small beetles and insect parts. An insect pest identification guide developed by MDA's Pesticide and Plant Pest Management Division's Insect and Rodent Management Program, and distributed to local, state, and federal food regulatory officials, played a key role in the identification of the pest involved.

III. Recommendations

MDA Recommendations for Regulators

- Emphasize exclusion and/or restriction of ill food handlers, discuss risk of transmission and the health and financial consequences that could ensue.
- Focus on finding and eliminating, during routine food safety inspections, unsafe food handling practices that are highly associated with foodborne illness.
- Review handwashing and glove use procedures.
- Evaluate cleaning and sanitizing practices for food equipment and utensils.
- Evaluate slow-cooling practices, to ensure compliance with proper time and temperature standards for foods.

MDA Recommendations for Local Health Departments

- In final reporting and termination reports for outbreaks, give a conclusion stating whether or not the outbreak was deemed foodborne based on investigation findings.
- Submit a completed Centers for Disease Control and Prevention (CDC) Form 52.13 with all events deemed probable foodborne illness outbreaks.

Appendix I – Workload Data by LHD

FY10 Workload – Output

Michigan Local Health Department Quarterly Reports Summary, 2010											
	INSPECTIONS CONDUCTED					INSPECTIONS DUE	PLAN REVIEW		INVESTIGATIONS		EVALUATION SCHEDULE
	3. Fixed food establishments	4. Mobile, vending & sfu	5. Temporary food establishments	6. Follow-up inspections	Total Number of Inspections Conducted (all inspection types)	7. Fixed, mobile, vending & sfu inspections due (annual total)	8. Number of plans received for review	9. Number of plans approved	10. Consumer Complaints Investigated	Number of Consumer Complaints per 100,000 People	11. Current evaluation frequency schedule in risk category order-ZYX (i.e. 6/6/12, 6/12/12, 6/12/18, etc. Indicate 6/6/6 if the standard 6 month schedule is used.
Allegan	596	31	111	217	955	618	5	4	12	11.29	6/6/6
BEDHD	948	46	145	125	1,264	46	31	27	52	31.11	6/6/6
Bay	673	20	144	57	894	992	10	3	51	47.05	6/6/6/
Benzie-Leela	327	5	134	41	507	293	3	3	9	22.63	6/6/6
Berrien	1,097	55	272	161	1,585	1,108	23	14	52	32.16	6/6/6
BHSJ	980	162	244	115	1,501	1,161	27	22	46	29.51	6/6/6
Calhoun	704	57	144	76	981	981	15	10	16	11.59	6/12/12
CMDHD	1,285	57	262	285	1,889	1,420	23	14	76	39.83	6/6/6
Chippewa	352	9	47	29	437	334	2	2	13	33.61	6/6/6
Delta-Menom	409	22	198	130	759	238	6	4	10	15.91	6/6/6
Detroit City	2,482	323	466	574	3,845	2,752	62	39	117	13.43	6/12/18
Dickinson-Iro	392	12	47	125	576	404	6	6	14	35.15	6/6/6
DHD # 2	417	17	156	60	650	475	12	11	47	67.73	6/12/18
DHD # 4	636	28	78	85	827	746	20	11	12	14.64	6/6/6
DHD # 10	1,488	161	566	252	2,467	1,645	33	21	62	23.30	6/6/6
Genesee	1,938	79	236	214	2,467	2,168	16	16	241	54.53	6/6/12
Grand Traver	556	57	83	132	828	613	22	16	21	24.72	6/6/12
Holland City*	243	55	77	193	568	268	15	9	20	58.40	6/6/12
Huron	255	30	153	132	570	285	5	4	3	8.79	6/12/12
Ingham	1,804	177	110	1,100	3,191	1,981	87	80	214	77.28	6/6/6/
Ionia	353	24	101	57	535	358	5	5	15	23.14	6/6/6
Jackson	825	101	110	47	1,083	943	31	25	55	33.57	6/6/6/
Kalamazoo	2,166	132	363	359	3,020	927	38	37	80	33.23	6/6/12
Kent	3,763	308	372	678	5,121	3,957	95	93	256	42.70	6/6/6
Lapeer	392	42	97	26	557	464	15	11	8	8.53	6/6(12Sea)/6
Lenawee	639	49	458	40	1,186	632	16	12	36	35.23	6/6/6
Livingston	726	54	113	48	941	941	26	19	101	54.74	6/6/6/
LMAS	451	19	234	23	727	727	9	8	10	27.67	6/6/6
Macomb	4,259	139	267	1,236	5,901	4,398	92	85	355	42.62	6/6/6
Marquette	360	26	97	93	576	400	9	10	15	23.19	6/12/18
Midland	584	60	119	121	884	644	23	21	28	33.42	6/6/6
Mid-Michigan	1,160	102	342	386	1,990	1	43	36	24	13.64	6/6/12
Monroe	895	33	139	88	1,155	928	27	21	85	54.83	6/6/12
Muskegon	1,058	107	268	437	1,870	1,165	48	41	122	69.62	6/6/6/
Northwest	1,013	50	191	181	1,435	1,063	24	26	10	9.16	6/6/6
Oakland	9,095	683	1,354	5,697	16,829	11,405	333	293	848	69.84	6/6/6
Ottawa	1,065	121	241	492	1,919	1,165	35	25	75	32.52	6/6(12Sea)/6
Saginaw	1,014	37	526	186	1,763	1,733	20	12	112	54.29	6/12/12
Sanilac	250	8	46	8	312	254	3	3	7	15.75	6/6/6/
Shiawassee	285	19	52	17	373	298	2	1	1	1.37	6/12/18
St. Clair	1,200	48	272	216	1,736	1,248	20	15	105	61.14	6/6/6
Tuscola	283	18	160	130	591	301	9	7	4	6.91	6/6/6
VanBuren-Ca	530	32	128	53	743	705	7	4	7	5.37	6/6/6
Washtenaw	2,398	99	601	731	3,829	2,413	96	75	212	61.62	6/6/6
Wayne	5,384	257	524	2,706	8,871	1,498	172	142	283	25.71	6/12/12/
Western UP	670	12	193	140	1,015	875	12	9	17	24.29	6/12/18
Totals	58,400	3,983	11,041	18,299	91,723	57,971	1,633	1,352	3,959	39.21	XXX
Average	1,270	87	240	398	1,994	1,260	36	29	86	39.21	XXX
Median	715	50	158	131	1,049	901	20	14	41	32	XXX
Minimum	243	5	46	8	312	1	2	1	1	1	0
Maximum	9,095	683	1,354	5,697	16,829	11,405	333	293	848	77	0

Appendix II – Output Data - Licensing by LHD

Michigan Local Health Department Quarterly Reports Summary 2010														
	ENFORCEMENT CONDUCTED		LICENSED FACILITIES											
	12. Administrative Action: office conference, informal conference, formal hearing.	13. Court Action: civil, criminal	Licensed Fixed Food Establishments	Fixed Licenses- % of Total Fixed Licenses	Licensed Mobile Establishments	Mobile Licenses- % of Total Mobile Licenses	Licensed STFU Establishments	STFU Licenses- % of Total STFU Licenses	Licensed Vending Establishments	Vending Licenses- % of Total Vending Licenses	Licensed Temporary Establishments (Number of temporary inspections used to equal # of Licenses)	Temporary Licenses- % of Total Temporary Licenses	Total Licensed Establishments (excluding temporary)	Fixed Food Establishments per 100,000 people
Allegan	5	0	314	1	0	0	27	3	29	1	111	1	370	295
BEDHD	4	9	494	2	5	1	26	3	57	2	145	1	582	296
Bay	4	1	391	1	4	1	1	0	12	0	144	1	408	361
Benzie-Leelanau	0	0	194	1	1	0	3	0	1	0	134	1	199	488
Berrien	3	0	616	2	11	2	9	1	60	2	272	2	696	381
BHSJ	1	0	503	2	2	0	39	5	99	3	244	2	643	323
Calhoun	0	0	470	1	6	1	8	1	68	2	144	1	552	341
CMDHD	3	2	686	2	1	0	39	5	37	1	262	2	763	360
Chippewa	0	2	179	1	0	0	1	0	8	0	47	0	188	463
Delta-Menominee	13	1	257	1	0	0	13	2	11	0	198	2	281	409
Detroit City	164	1	1,751	5	93	21	8	1	262	7	466	4	2114	201
Dickinson-Iron	4	0	203	1	0	0	0	0	19	1	47	0	222	510
DHD # 2	2	0	322	1	0	0	10	1	7	0	156	1	339	464
DHD # 4	0	0	402	1	0	0	9	1	1	0	78	1	412	490
DHD # 10	20	5	898	3	6	1	29	4	81	2	566	5	1014	337
Genesee	17	0	1,264	4	9	2	33	4	126	3	236	2	1432	286
Grand Travers	2	0	330	1	7	2	19	2	41	1	83	1	397	388
Holland City	0	0	130	0	0	0	8	1	48	1	77	1	186	380
Huron	1	0	174	1	1	0	18	2	19	1	153	1	212	510
Ingham	82	23	955	3	0	0	74	9	67	2	110	1	1096	345
Ionia	8	1	164	1	1	0	13	2	24	1	101	1	202	253
Jackson	5	0	455	1	0	0	20	3	56	1	110	1	531	278
Kalamazoo	37	9	826	3	5	1	34	4	102	3	363	3	967	343
Kent	59	13	1,851	6	36	8	32	4	428	11	372	3	2347	309
Lapeer	2	0	233	1	2	0	13	2	14	0	97	1	262	249
Lenawee	7	0	315	1	1	0	1	0	55	1	458	4	372	308
Livingston	3	1	412	1	8	2	25	3	24	1	113	1	469	223
LMAS	2	0	255	1	1	0	4	1	8	0	234	2	268	706
Macomb	158	0	2,375	7	22	5	14	2	279	7	267	2	2690	285
Marquette	2	1	260	1	0	0	9	1	16	0	97	1	285	402
Midland	0	0	273	1	25	6	17	2	13	0	119	1	328	326
Mid-Michigan	29	8	515	2	1	0	28	4	77	2	342	3	621	293
Monroe	7	3	484	2	7	2	58	7	38	1	139	1	587	312
Muskegon	36	8	572	2	4	1	37	5	157	4	268	2	770	326
Northwest	0	0	635	2	4	1	6	1	26	1	191	2	671	581
Oakland	146	0	4,001	13	119	27	12	2	454	12	1,354	12	4586	330
Ottawa	50	16	563	2	0	0	9	1	175	5	241	2	747	244
Saginaw	35	15	648	2	0	0	4	1	52	1	526	5	704	314
Sanilac	1	1	170	1	4	1	7	1	11	0	46	0	192	382
Shiawassee	0	0	209	1	4	1	15	2	12	0	52	0	240	287
St. Clair	14	4	504	2	4	1	8	1	72	2	272	2	588	293
Tuscola	3	0	152	0	0	0	8	1	17	0	160	1	177	263
VanBuren-Cass	1	0	373	1	3	1	5	1	33	1	128	1	414	286
Washtenaw	58	0	1,167	4	17	4	13	2	166	4	601	5	1363	339
Wayne	237	80	3,542	11	26	6	22	3	418	11	524	5	4008	322
Western UP	27	8	403	1	1	10	3	0	5	0	193	2	412	576
Totals	1,252	212	31,890	XXX	441	XXX	791	XXX	3,785	XXX	11,041	XXX	36,907	16,456
Average	27	5	693	XXX	10	XXX	17	XXX	82	XXX	240	XXX	802	316
Median	4	0	434	XXX	3	XXX	13	XXX	40	XXX	158	XXX	500	328
Minimum	0	0	130	0	0	0	0	0	1	0	46	0	177	201
Maximum	237	80	4,001	13	119	27	74	9	454	12	1,354	12	4,586	706

Appendix III – Program Staffing – Program Revenue by LHD

Michigan Local Health Department Quarterly Reports Summary 2010														
	IMPORTANT FACTOR IV STAFFING							FINANCIAL						
	14. Total number of FTE's assigned to the food program in the following areas: plan review, subdivision	15. Total number of FTE's assigned to conduct food establishment inspections (all types)	Total FTE's	Minimum Inspection Staffing per FDA	Recommended Inspection Staffing per FDA	Average Number of Inspections per FTE Assigned to Conduct Food Establishment Inspections	Fees Collected	Local Tax Dollars	LPHO Dollars	Total Program Revenue	Program Dollars per Licensed Establishment	Program Dollars per FTE	Program Dollars per Citizen	Population
Allegan	2.40	2.00	4.4	2.0	2.8	478	155,000	178,137	87,744	420,881	1,138	95,655	3.96	106,310
BEDHD	2.30	2.70	5	3.1	4.4	468	273,050	216,626	133,251	622,927	1,070	124,585	3.73	167,136
Bay	0.50	2.25	2.75	2.3	3.2	397	124,000	68,144	90,745	282,889	693	102,869	2.61	108,390
Benzie-Leelanau	0.90	0.60	1.5	1.3	1.8	845	85,549	10,141	41,420	137,110	689	91,407	3.45	39,764
Berrien	1.00	4.50	5.5	4.0	5.5	352	150,000	1,751	155,309	307,060	441	55,829	1.90	161,705
BHSJ	1.20	4.00	5.2	3.7	5.1	375	220,000	110,304	130,420	460,724	717	88,601	2.96	155,858
Calhoun	3.85	2.65	6.5	2.9	4.2	370	187,393	4,330	182,243	373,966	677	57,533	2.71	137,991
CMDHD	5.90	3.00	8.9	4.3	6.0	630	280,000	31,922	217,500	529,422	694	59,486	2.77	190,805
Chippewa	1.58	0.50	2.083	1.0	1.4	874	74,900	44,400	44,336	163,636	870	78,558	4.23	38,674
Delta-Menominee	2.16	1.58	3.74	1.9	2.5	480	98,000	16,791	50,843	165,634	589	44,287	2.64	62,852
Detroit City	5.00	9.00	14	10.9	15.6	427	1,143,000	107,782	522,380	1,773,162	839	126,654	2.04	871,121
Dickinson-Iron	1.50	1.50	3	1.1	1.6	384	90,164	12,015	56,132	158,311	713	52,770	3.98	39,824
DHD # 2	2.61	0.80	3.41	2.0	2.8	813	106,448	20,598	75,244	202,290	597	59,323	2.92	69,395
DHD # 4	0.89	2.41	3.3	2.1	3.0	343	140,000	44,252	79,949	264,201	641	80,061	3.22	81,971
DHD # 10	7.00	5.60	12.6	6.4	8.6	441	309,685	110,835	214,761	635,281	627	50,419	2.39	266,085
Genesee	4.00	10.00	14	7.2	10.3	247	858,635	323,037	457,808	1,639,480	1,145	117,106	3.71	441,966
Grand Traverse	0.70	2.00	2.7	2.0	2.9	414	161,000	45,579	62,998	289,577	729	107,251	3.41	84,952
Holland City	0.80	0.80	1.6	1.1	1.5	710								34,245
Huron	0.49	0.62	1.11	1.5	1.9	919	92,673	2,957	35,094	130,724	617	117,769	3.83	34,143
Ingham	3.50	7.50	11	5.2	7.7	425	584,615	419,629	214,220	1,218,464	1,112	110,769	4.40	276,898
Ionia	2.00	1.00	3	1.2	1.7	535	65,000	216	54,356	119,572	592	39,857	1.84	64,821
Jackson	1.75	1.75	3.5	2.7	3.9	619	246,726	146	121,765	368,637	694	105,325	2.25	163,851
Kalamazoo	8.00	6.00	14	5.5	7.7	503	297,000	177,851	297,785	772,636	799	55,188	3.21	240,720
Kent	14.40	10.00	24.4	11.7	16.9	512	808,000	74,945	342,313	1,225,258	522	50,215	2.04	599,524
Lapeer	1.30	1.14	2.44	1.5	2.1	489	106,100	68,668	76,257	251,025	958	102,879	2.68	93,761
Lenawee	1.00	1.50	2.5	3.2	4.0	791	175,500	55,481	105,431	336,412	904	134,565	3.29	102,191
Livingston	1.25	2.50	3.75	2.5	3.5	376	370,750	24,700	121,565	517,015	1,102	137,871	2.80	184,511
LMAS	0.87	1.64	2.51	2.0	2.6	443	110,910	1,192	124,042	236,144	881	94,081	6.53	36,143
Macomb	6.00	15.00	21	12.8	18.8	393	724,746	412,014	545,641	1,682,401	625	80,114	2.02	832,861
Marquette	0.61	1.20	1.81	1.6	2.2	480	148,000	193	53,078	201,271	706	111,199	3.11	64,675
Midland	1.80	1.40	3.2	1.9	2.6	631	102,367	17,688	68,350	188,405	574	58,877	2.25	83,792
Mid-Michigan	5.00	4.00	9	3.9	5.3	498	235,750	86,330	248,483	570,563	919	63,396	3.24	175,993
Monroe	0.40	1.10	1.5	3.1	4.4	1,050	215,000	847	78,782	294,629	502	196,419	1.90	155,035
Muskegon	2.85	2.25	5.1	4.3	6.0	831	291,135	163,705	101,846	556,686	723	109,154	3.18	175,231
Northwest	6.00	3.25	9.25	3.6	5.1	442	265,250	67,548	90,703	423,501	631	45,784	3.88	109,203
Oakland	15.60	28.10	43.7	24.9	35.1	599	1,055,716	1,517,309	821,317	3,394,342	740	77,674	2.80	1,214,255
Ottawa	2.50	4.10	6.6	4.1	5.8	468	339,630	324,493	137,140	801,263	1,073	121,403	3.47	230,617
Saginaw	1.01	3.23	4.24	4.9	6.4	546	284,000	103,374	255,998	643,372	914	151,739	3.12	206,300
Sanilac	1.68	1.17	2.85	1.0	1.4	267	61,267	0	47,747	109,014	568	38,251	2.45	44,448
Shiawassee	0.40	0.90	1.3	1.2	1.8	414	82,367	48,208	93,006	223,581	932	171,985	3.07	72,912
St. Clair	1.50	4.00	5.5	3.5	4.8	434	142,250	209,632	160,674	512,556	872	93,192	2.98	171,725
Tuscola	0.41	0.68	1.09	1.3	1.7	869	64,994	932	40,984	106,910	604	98,083	1.85	57,878
VanBuren-Cass	1.50	1.50	3	2.3	3.2	495	98,000	117,403	98,927	314,330	759	104,777	2.41	130,347
Washtenaw	3.80	9.00	12.8	8.1	11.1	425	682,571	456,824	273,992	1,413,387	1,037	110,421	4.11	344,047
Wayne	24.40	17.40	41.8	19.6	28.5	510	2,224,200	915,249	1,087,379	4,226,828	1,055	101,120	3.84	1,100,732
Western UP	2.20	1.40	3.6	2.5	3.4	725	164,000	50,011	104,473	318,484	773	88,468	4.55	69,985
Totals	166.61	189.22	346	201	283	24,738	14,495,341	6,664,189	8,424,431	29,583,961	35,058	4,162,969	140	10,095,643
Average	3.40	4.11	8	4	6	485	322,119	148,093	187,210	657,421	802	85,569	2.93	219,471
Median	1.78	2.25	4	3	4	480	175,500	55,481	105,431	368,637	723	94,081	3.07	134,169
Minimum	0.40	0.50	1	1	1	247	61,267	0	35,094	106,910	441	38,251	1.84	34,143
Maximum	24.40	28.10	44	25	35	1,050	2,224,200	1,517,309	1,087,379	4,226,828	1,145	196,419	6.53	1,214,255

Note: Holland City inspections reported through Allegan and Ottawa Health Departments.

Appendix IV – Foodborne Illness Outbreaks by LHD

Potential Foodborne Illness Outbreaks by Local Health Department							
Jurisdiction	FBI Outbreaks	% of Total FBIs	% of Total MI FSEs	Population	% of Total Population	Reports Filed w/ State	Missing Reports
WAYNE	24	16.2%	11.1%	1,100,732	11%	24	0
KENT	17	11.5%	5.8%	599,524	6%	17	0
OAKLAND	16	10.8%	12.5%	1,214,255	12%	16	0
WASHTENAW	12	8.1%	3.7%	344,047	3%	12	0
BR-HILLS-STJOE	8	5.4%	1.6%	155,858	2%	8	0
INGHAM	8	5.4%	3.0%	276,898	3%	5	3
GRAND TRAVERSE	5	3.4%	1.0%	84,952	1%	4	1
BARRY-EATON	4	2.7%	1.5%	167,136	2%	4	0
DHD #10	4	2.7%	2.8%	266,085	3%	4	0
LIVINGSTON	4	2.7%	1.3%	184,511	2%	4	0
GENESEE	3	2.0%	4.0%	441,966	4%	3	0
IONIA	3	2.0%	0.5%	64,821	1%	3	0
JACKSON	3	2.0%	1.4%	163,851	2%	2	1
LENAWEE	3	2.0%	1.0%	102,191	1%	3	0
OTTAWA	3	2.0%	1.8%	230,617	2%	2	1
MID-MI DHD	3	2.0%	1.6%	175,993	2%	3	0
MACOMB	3	2.0%	7.4%	832,861	8%	3	0
MUSKEGON	3	2.0%	1.8%	175,231	2%	3	0
BAY	2	1.4%	1.2%	108,390	1%	2	0
BERRIEN	2	1.4%	1.9%	161,705	2%	2	0
CALHOUN	2	1.4%	1.5%	137,991	1%	2	0
DHD #4	2	1.4%	1.3%	81,971	1%	2	0
ALLEGAN	2	1.4%	1.0%	106,310	1%	2	0
MARQUETTE	2	1.4%	0.8%	64,675	1%	2	0
DHD #2	2	1.4%	1.0%	69,395	1%	2	0
MULTI-JURISDICTIONAL	1	0.7%	-	-	-	1	0
MONROE	1	0.7%	1.5%	155,035	2%	1	0
KALAMAZOO	1	0.7%	2.6%	240,720	2%	1	0
SAGINAW	1	0.7%	2.0%	206,300	2%	1	0
CENTRAL MI	1	0.7%	2.2%	190,805	2%	1	0
SANILAC	1	0.7%	0.5%	44,448	0%	1	0
WESTERN UP	1	0.7%	1.3%	69,985	1%	1	0
VANBUREN-CASS	1	0.7%	1.2%	130,347	1%	1	0
	148	100.0%	~	~	~	142	6

Note: The number of reported illnesses cannot be interpreted as indicating the relative risk or safety of food in any jurisdiction.

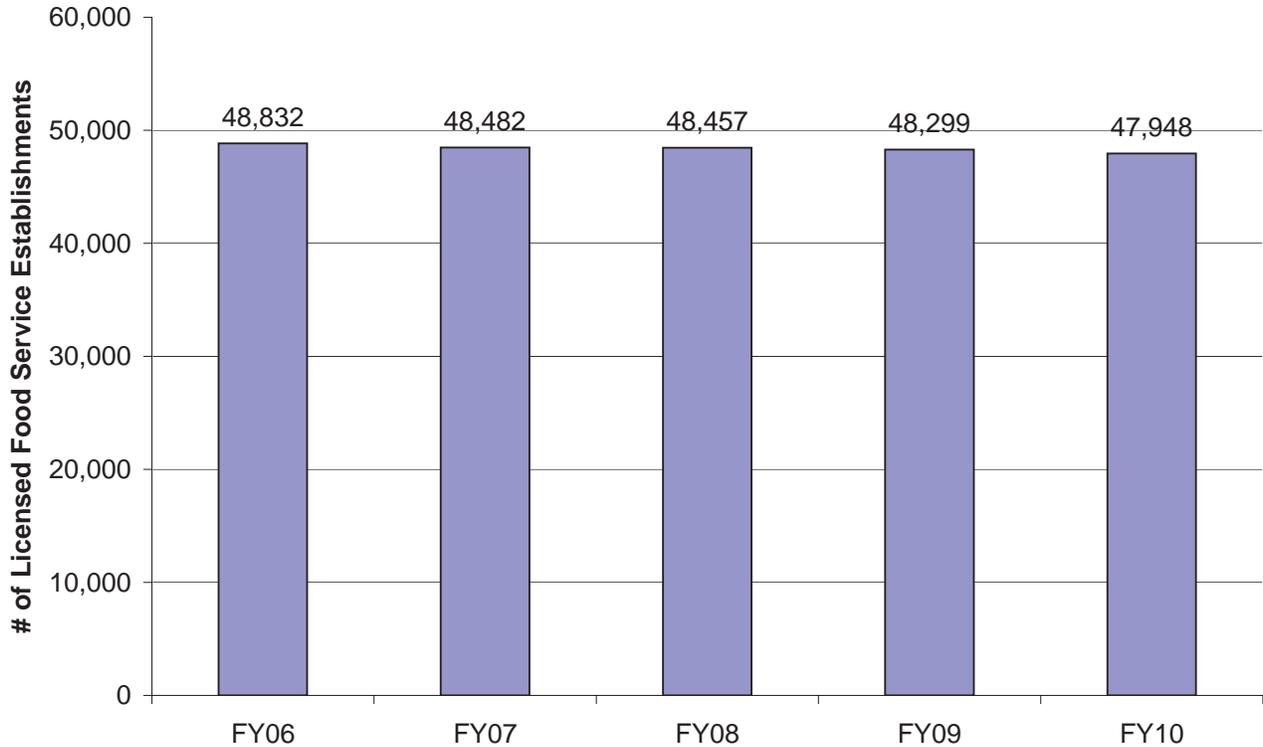
Michigan Population Estimate, 2006: 10,095,643 (Source: U.S. Census Bureau)

Michigan Foodservice Establishments= 31,890

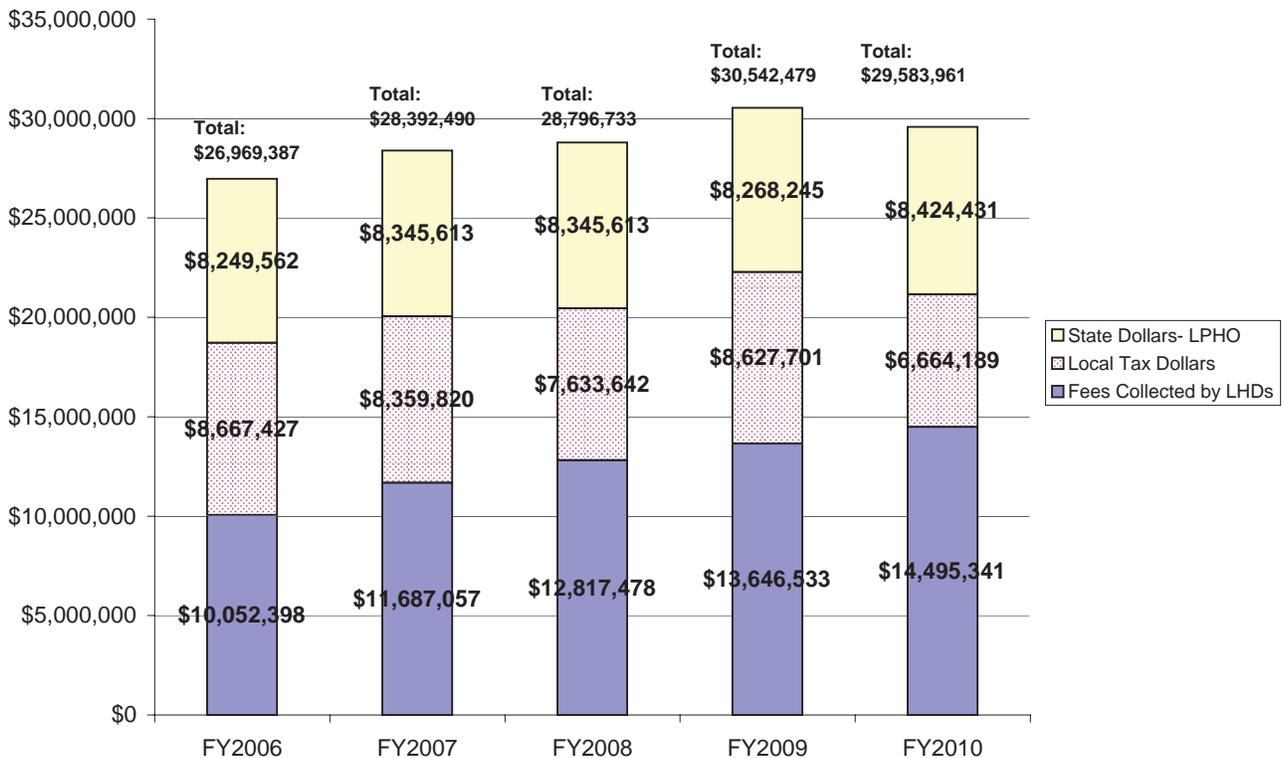
Appendix V – Five-Year Trend Analysis Charts

Local Health Departments

Licensed Food Service Establishments (LHD), Five-Year Comparison

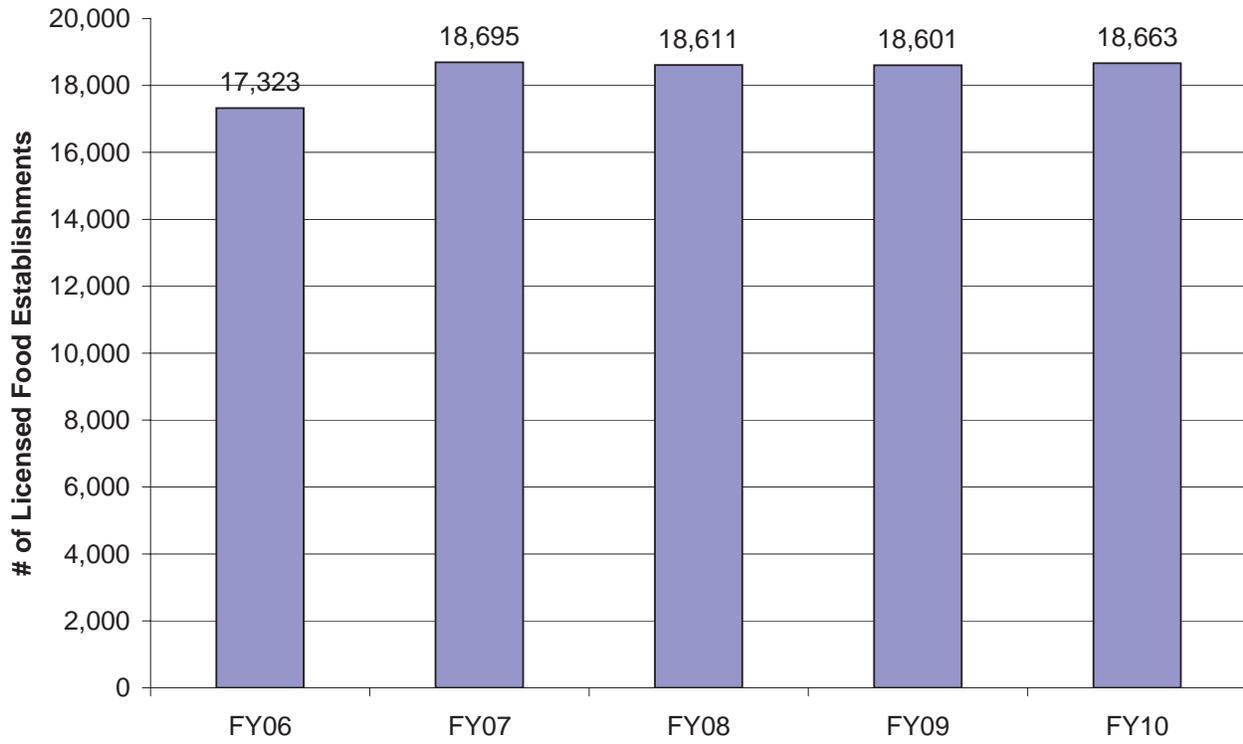


LHD Funding Sources, Five-Year Comparison

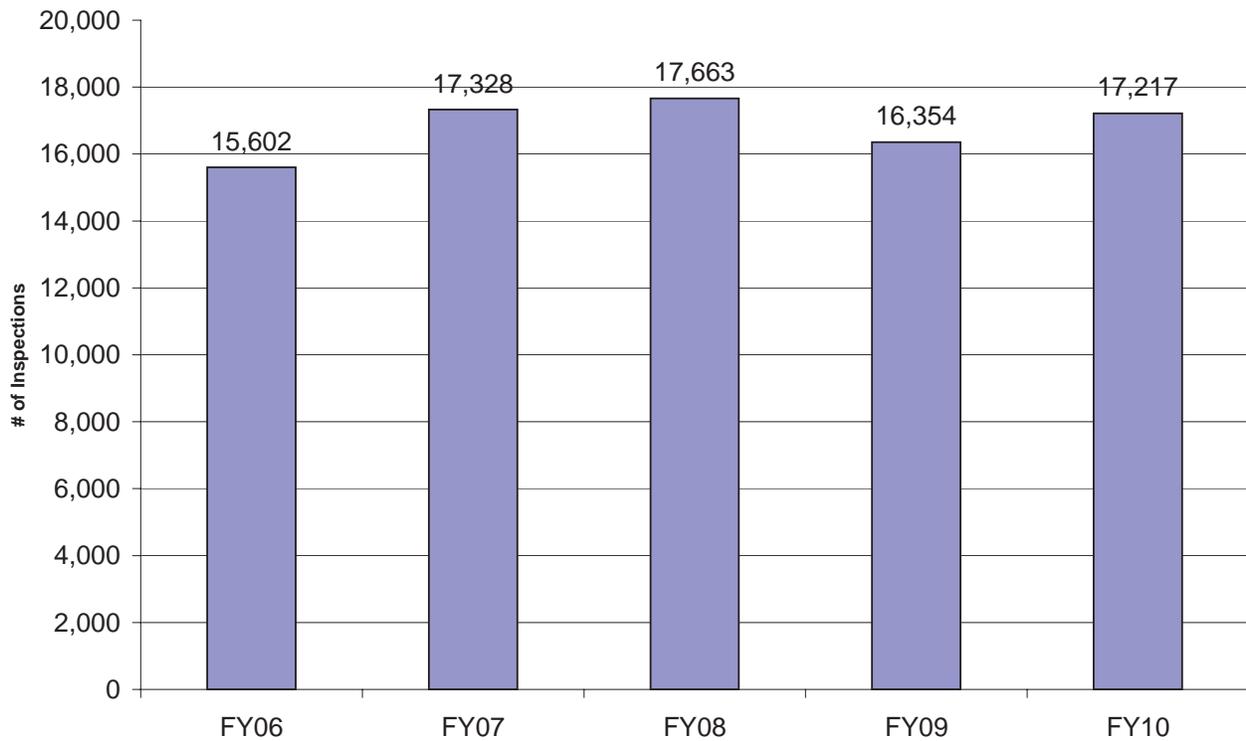


MDA Food Safety and Inspection Program

Licensed Food Establishments (MDA), Five-Year Comparison

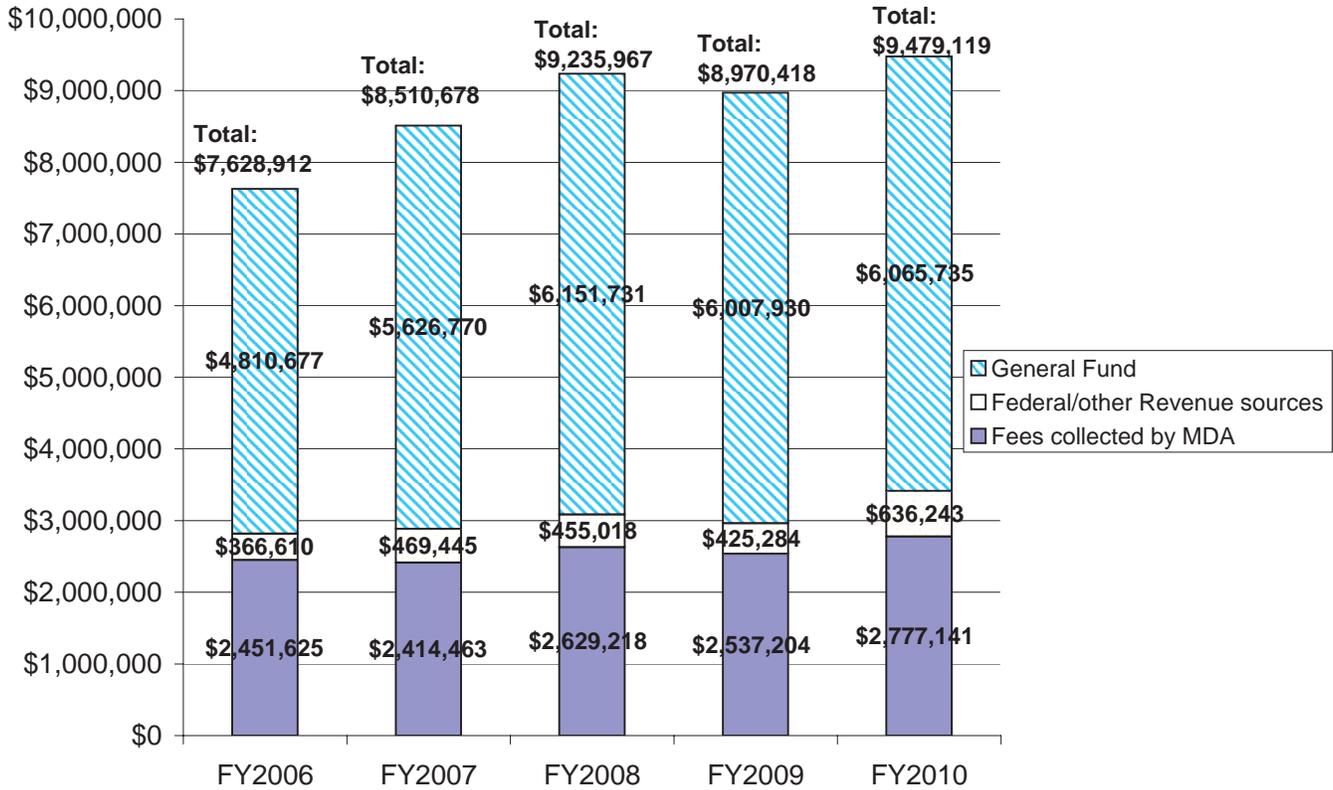


Number of Food Inspections, Five-Year Comparison



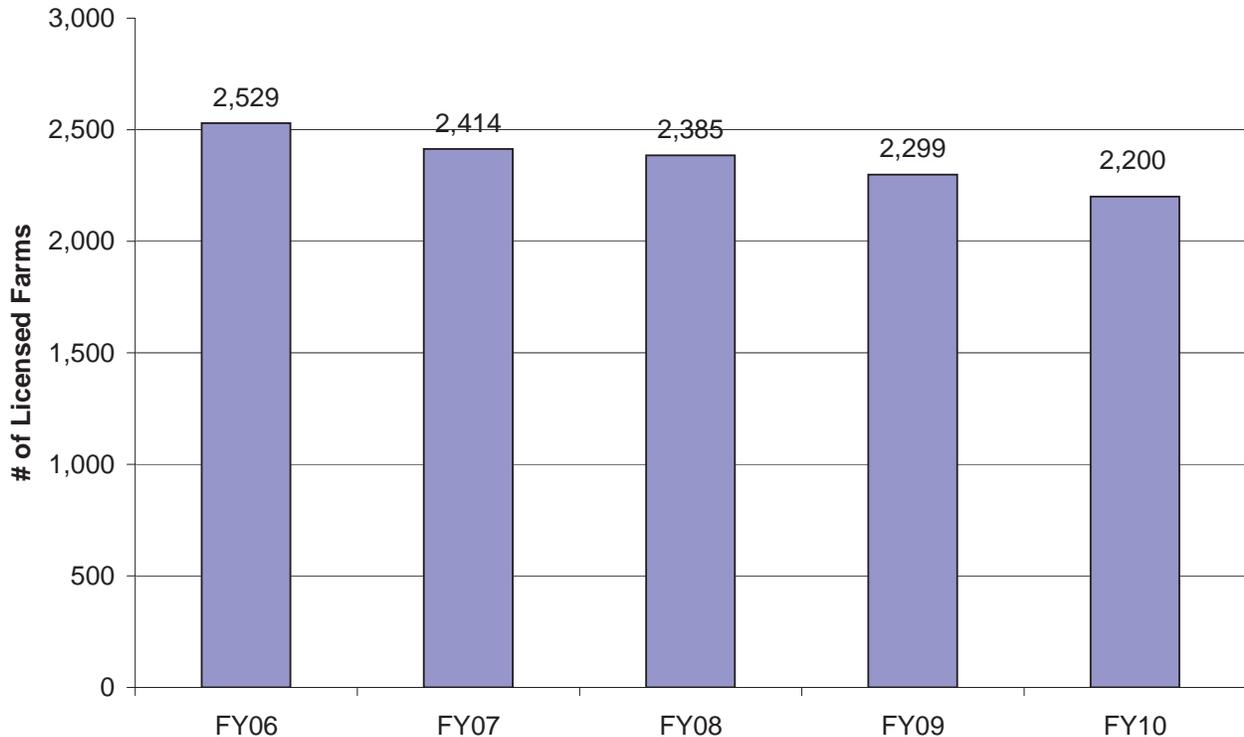
Note: Fair inspections are not included in the food inspection counts for this graph.

MDA Food Safety Funding Sources, Five-Year Comparison



MDA Milk and Dairy Product Safety and Inspection Program

Licensed Dairy Farms, Five-Year Comparison

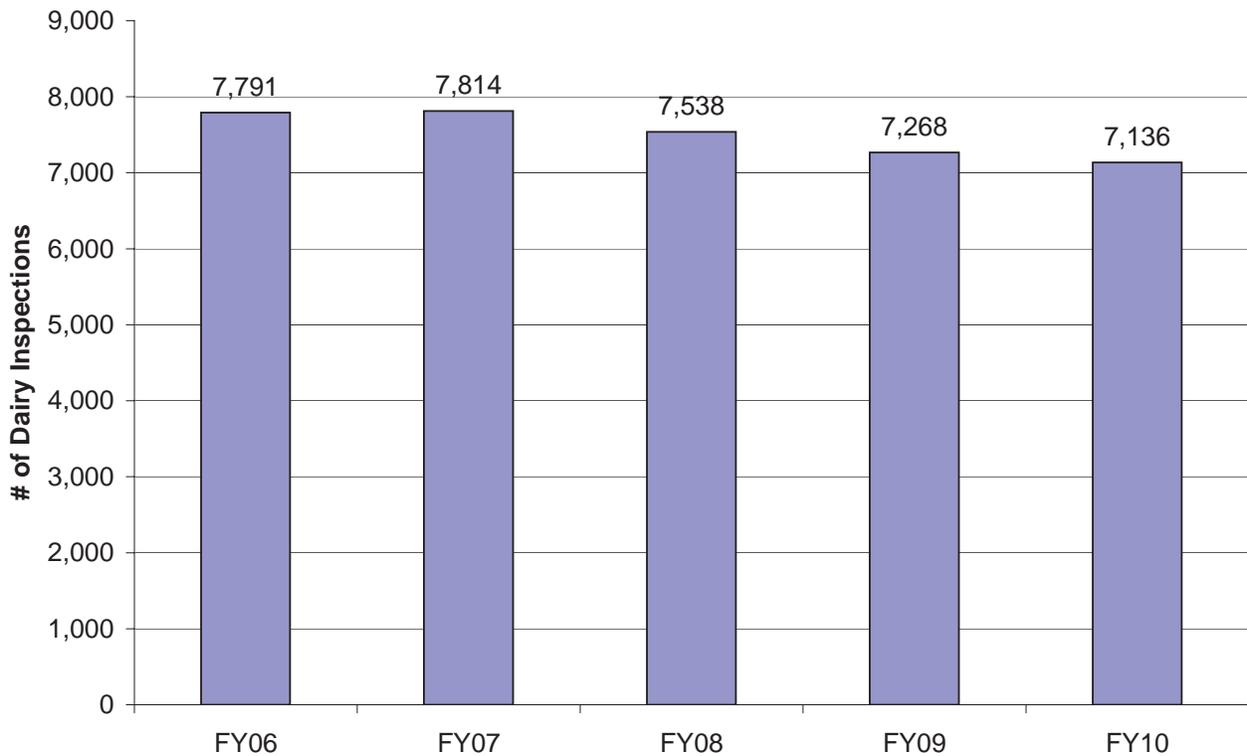


Licensed Dairy Facilities, Five-Year Comparison



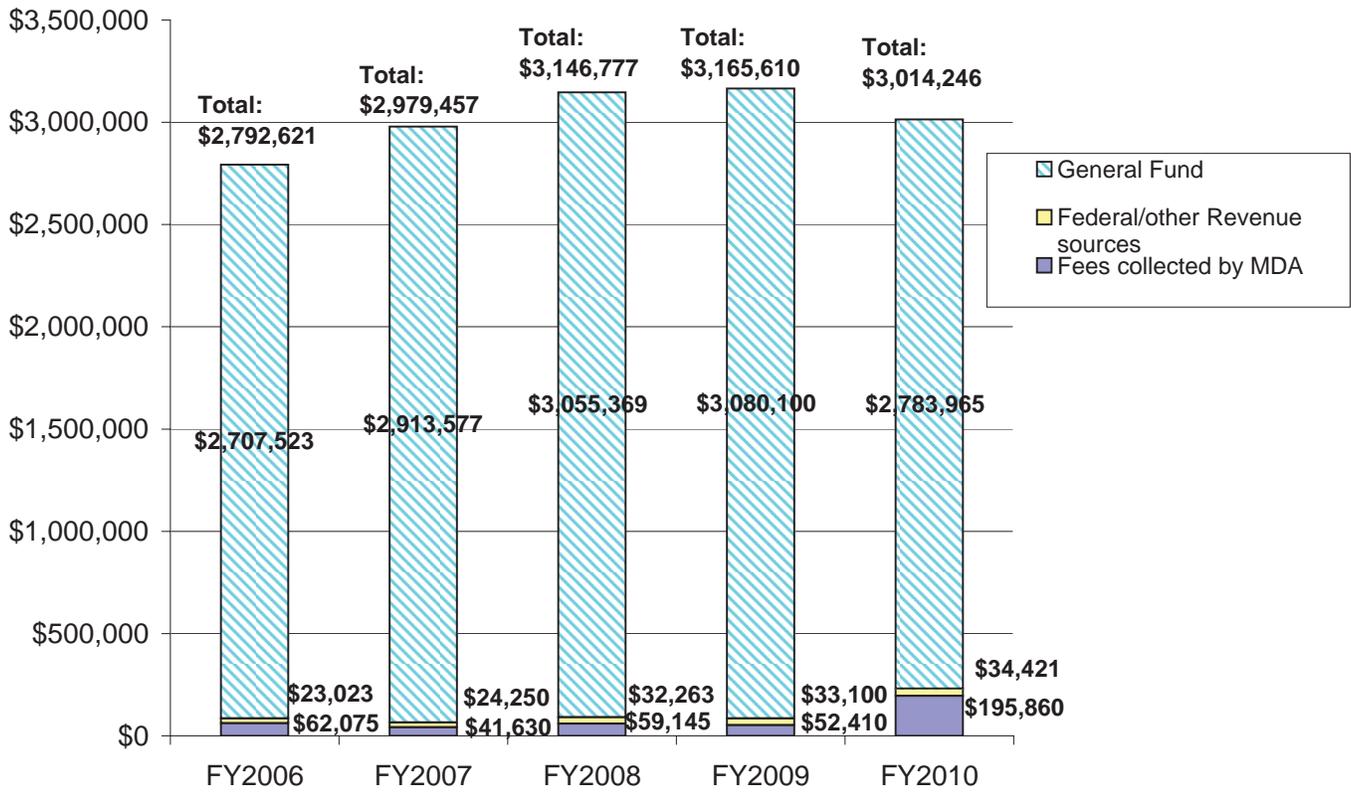
Licensed Facilities Includes: Grade A Plants, Manufacturing Plants, Grade A Milk Distributors, Grade A Transfer Stations/Receiving Stations/Tank Truck Cleaning and Grade A Single Service.

Dairy Inspections, Five-Year Comparison



Inspections Include: Farm, Plant, Hauler/Sampler/Tanker, Pasteurization, and USDA Survey.

MDA Milk and Dairy Product Safety Funding Sources, Five-Year Comparison





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