

## 2023 International Plowing Match

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**To:** Chair and Members of the Board of Health

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## Recommendations

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It is recommended that the Board of Health receive this report for information.

## Key Points

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- The 104th International Plowing Match and Rural Expo (IPM) was held in Amaranth Township located in Dufferin County, on September 19-23, 2023. The IPM had an attendance of 68,336 visitors over five days. The efforts undertaken by Wellington Dufferin Guelph Public Health (WDGPH) during the planning and event phases with the IPM organizers and community partners, resulted in an excellent public health outcome, with no reported cases of food or water-borne illness or other public health issues.
- Public Health risks are higher with events such as the IPM and require additional agency planning and resources. The 2023 IPM involved leadership from the Ontario Plowman's Association (OPA) and community volunteers and organizers. By being involved in the planning process, WDGPH identified significant food and water risks that were mitigated before the start of the IPM festivities.
- The IPM had 33 food vendors that required inspections. A total of 71 compliance inspections were conducted satisfactorily. Food operators were cooperative and corrected infractions immediately.

- 55 water samples were taken for bacteriological testing and over 100 manual Chlorine residual tests were taken from eight sampling sites with continuous Chlorine residual monitoring directly through the water system. Manual residual tests were conducted twice daily. Chlorine residuals remained acceptable during the duration of the event. Water remained potable during the event with no complaints or water-related illness reported.
- Dufferin County led the development of the 2023 IPM Site Protection and Emergency Response Plan. The plan was published as an annex to the existing Dufferin Country Emergency Management Plan. WDGPH was an active participant in the planning process and part of the unified command structure and included a public health-focused plan that addressed specific public health needs during the IPM should an adverse event occur.
- Agency staff recorded approximately 1000 hours spent on planning and on-site activities.

## Background

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This report highlights the WDGPH planning and on-site support during the 2023 IPM.

WDGPH's participation with organizers and community partners resulted in no reported cases of food or water-borne illness and no other significant public health-related issues.

### What is the International Plowing Match?

In 1911, several Ontario plowing associations joined to form the Ontario Plowmen's Association (OPA). Today, this volunteer-driven, non-profit organization has approximately 1,000 members. The OPA held the first International Plowing Match & Rural Expo (IPM) in 1913 and has continued to host the IPM in Ontario communities each year. The IPM is a five-day event celebrating agriculture and rural living. It is touted as the largest outdoor event of its kind in Canada and attracts on average 70,000+ people from across Ontario, throughout Canada, the United States, and beyond. The IPM hosts plowing competitions, the Queen of the Furrow competition, activities for all ages, opportunities to learn about agriculture, live entertainment, hundreds of vendors and exhibitors, a wide variety of food, and an RV Park to name a few. <sup>1</sup>

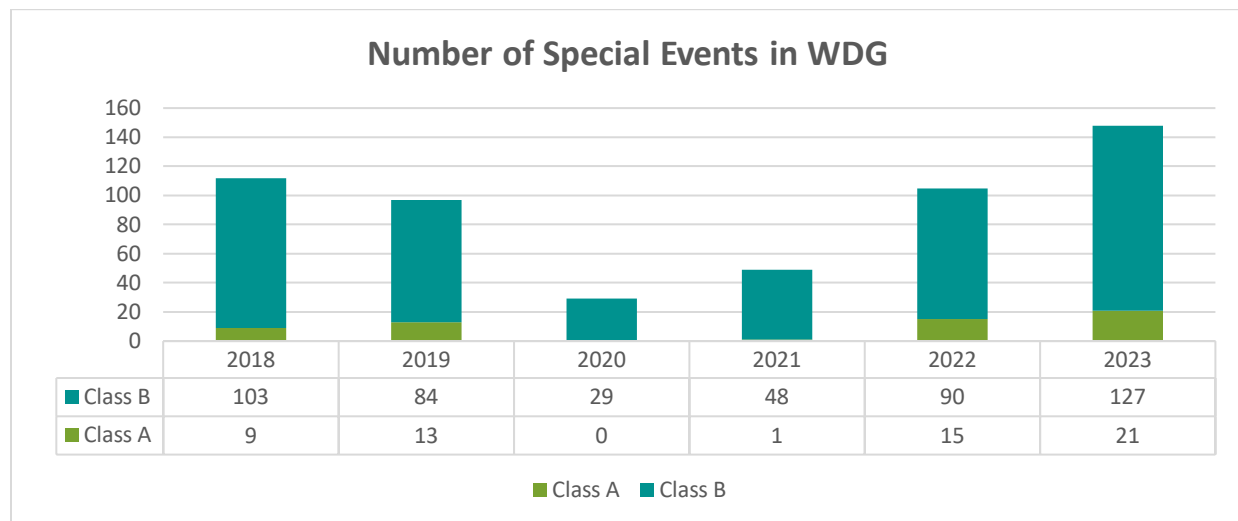
### Special Event Public Health Risks

WDGPH enjoys a good track record for safe special events. However special events can go wrong. For example, the 2023 Best Western Orangeville Outbreak involving 88 people who became ill with *Bacillus Cereus*, the 2013 Cronut Burger outbreak at the Toronto CNE where

223 people became ill from consuming food contaminated with *Staphylococcus aureus* toxin, or the extreme rain at the 2023 Burning Man event in Nevada that left tens of thousands of people stranded for days serve as reminders of the consequences when things go awry. <sup>2,3</sup>

## Special Events in Wellington Dufferin Guelph Public Health

In 2023, Wellington Dufferin Guelph Public Health was notified of 148 special events within the area requiring public health notification. Of those 148 events, 21 were considered large (Class A) events with 127 considered smaller (Class B) events. These numbers represent a 5-year high in Special Events (refer to table below). The size, scope, and duration of special events differ but risks are routinely and effectively managed through the WDGPH public health inspection team. Recognizing the public health risks due to the complexity of the IPM, WDGPH invested additional resources to take a significant planning role and execution of the 2023 IPM as was done in 2016 when the IPM was last hosted in the WDG area.



**Class A Events:** Large events occurring annually with a higher food safety risk. Class A events require an onsite inspection. Example: Multicultural Festival

**Class B Events:** Events ranging in frequency, size, and risk factor. A formal risk assessment is required to determine if an onsite inspection is appropriate. Example: The Guelph Games

## Discussion

### Planning

Planning the public health response to the IPM was of paramount importance and began early. A core WDGPH planning team was created and held its first planning meeting on January 10, 2023.

The core planning team consisted of five public health inspectors (PHI), the program assistant, and the program manager. Additional non-core members representing other agency functions participated as needed.

The planning team used the Incident Management System (IMS) to structure and assign responsibilities. Lessons learned from the 2016 IPM were first and foremost in the 2023 IPM planning to ensure we continued to follow effective practices.

Due to the risks, complexity, and scope of this event, WDHPH reached out early to the IPM event organizers. Following an initial period where joint planning activities and communications were beginning, WDGPH presented at a formal IPM organizer's meeting on February 11. This meeting served as an opportunity to network with key IPM and OPA personnel; to educate on the public health risks associated with large special events and to clarify expectations, roles, and responsibilities. The local IPM organizers soon realized the importance and extent of Public Health's role and guidance, and that we had a shared goal of hosting a successful event.

In total, approximately 1000 hours were spent by our agency, including 306 hours spent at the event in September. This does not include time spent by other agency support functions (such as Communications) during the planning phase or time spent on other administrative items (such as providing updates during team meetings). Agency personnel planning was another important element of the agency's strategy. Five summer practicum PHI students had their contracts extended through September to ensure adequate work coverage. As a result of this decision and the efforts of the entire team to front-end load routine inspection work, the Environmental Health team was able to complete 100% of mandated activities in 2023 in addition to this added event.

WDGPH also invited representatives from the health unit hosting the 2024 IPM (Haliburton Kawartha Pine Ridge District Health Unit (HKPR)) into the planning process to assist in 2024 preparation. HKPR has agreed to carry on this practice for the 2025 IPM.

Another important element of planning is to ensure that an After-Action Review (AAR) is held to assess the entire planning and event process for what went well and what can be improved for future similar events. An internal AAR was held on November 16, 2023, with the findings being incorporated into agency processes for the future. The AAR included key lessons/learnings:

#### What Went Well:

- Clearly defined team roles and responsibilities
- Early and detailed planning
- Early and active involvement with event organizers
- Supportive and engaged IPM organizers.

- On-site equipment, tools, and resources
- Use of technology such as online vendor application
- Asking for and encouraging higher standards related to training, water, etc.

#### Improvement Areas (Lessons Learned):

- PHI inspection selection and assignment process for the event
- Clarify early on with IPM organizers, the communication and public health expectations
- Push for early emergency planning activities
- Better use of digital inspection tools to facilitate reporting and inspection status

### **Public Health Outcomes**

The efforts undertaken by WDGPH during the planning and event phases in conjunction with the efforts of the organizers and sister agencies, resulted in an excellent public health outcome as follows:

- # of food safety complaints: 0
- # of food-related illnesses reported: 0
- # of water-related illnesses reported: 0
- # of infectious diseases or related complaints reported: 0
- # of other public health-related complaints or incidents, including animal incidents: 0

### **Food**

WDGPH inspected 33 vendors/events including a VIP dinner event and a *Plowman's Lunch*. A total of 71 inspections were conducted. There were 21 pre-opening inspections and 50 compliance or re-inspection inspections during the event. Inspection frequency was based on risk and vendor compliance. Overall, there was a high degree of regulatory compliance. Infractions observed by the PHI were corrected on-site and by in-large, food operators were cooperative. Often, the identified food safety issues would be resolved through joint problem-solving with the operators. Examples included solutions around hot water in the VIP lounge and the use of refrigerated coolers for hazardous food displays. No enforcement action such as the laying of charges was required. When comparing the number of infractions observed at the 2023 IPM against those of selected other large, inspected events held in 2023, vendor compliance was like other special events (see Appendix A for comparison details).

## Unique Agency Actions Supporting the Positive Public Health Outcome

**Pre-Opening Inspections.** Through an agreement with the IPM organizers, food vendors were required to pass an on-site pre-opening inspection before being permitted to sell food. Pre-opening vendor inspections contributed greatly to food safety compliance during the event.

**Volunteer Meals.** PHIs reviewed menus and preparation plans to produce meals by volunteers. It was discovered that high-risk meals and meal components were planned to be prepared at volunteers' homes. This significant food safety risk was modified to limit all food production in a health unit-approved kitchen to ensure safe food handling was maintained throughout meal preparation, assembly, and distribution. Food safety education and recommendations allowed IPM organizers to decide to limit meals to safer and simpler food preparation.

**Early Communication with food vendors.** WDGPH enjoyed an excellent working relationship with the IPM organizers which permitted effective communication with potential food vendors. The creation of specific items such as a tailored IPM Food Vendor Package, tailored IPM Special Event Application, continuous dialogue with the IPM Chairs & OPA, and a visible public health commitment by the IPM Chairs & OPA contributed to positive public health outcomes.

**Food Handler Training.** With the agreement of the IPM organizers, training for volunteers who prepared meals became mandatory. WDGPH certified 28 volunteers at no-charge in food safety training. All volunteer food handlers attended an 8-hour course or a 4-hour workshop and exam.

## Water

Potable water was trucked from the Town of Grand Valley municipal system to the IPM site where it was stored, pressurized, and distributed through approx. 10 km. of water lines with over 1,000 access points throughout the Tented City and RV site. Water lines were installed several weeks before the event into shallow trenches or directly on the ground and covered with bark mulch for protection against vehicular and pedestrian traffic. Additional chlorine was added to the water which was continuously monitored and rigorously tested. In total, 549,000 liters (145,030 Gal.) of water was used during the IPM.

Pre-opening bacteriological water samples were taken following the commissioning of the water system. Two of those samples resulted in adverse sample results, meaning that bacteriological contamination was present in the system. Further chlorination and flushing followed by (2) additional sets of 7 samples were taken before the system could be cleared for public use. During the event, water samples were collected by the Licensed Water Operator along with audit water samples collected by PHIs, all with satisfactory results. A total of 55 bacteriological samples were collected and analyzed for potability by an accredited laboratory.

Over 100 manual Chlorine residual tests were taken from eight sampling sites in addition to the continuous 24-hour Chlorine monitoring at the point of distribution. Manual Chlorine residual tests were conducted twice daily. Chlorine residuals remained acceptable throughout the event. Waterline breaks and leaks were rare but were quickly identified, resolved, and repaired under the supervision of the licensed operator. Potable water was maintained during the event with no complaints or water-related illness reported.

**Early Engagement.** Early agency involvement with the organizing committee responsible for providing water was essential to ensure that volunteers understood the risks and scale of providing potable water to an event of this size. WDGPH was able to provide clear direction, education, and rationale for water system requirements to safeguard public health at the event.

**Water Line Risk Assessment.** The initial proposed layout for the water distribution lines showed capped dead ends on each run with the intent that it would be the easiest installation design. However dead-end lines increase the risk of water contamination from stagnant water and create conditions for potential bacterial growth. Based on PHI feedback, water distribution plans were revised with fully connected lines that eliminated dead ends.

**Licensed Water Operator.** WDG insisted on a knowledgeable Licensed Water Operator to be on site for the daily operation of the water system. This proved to be invaluable for both the initial commissioning of the system and the continuous monitoring and operation.

## **Emergency Planning**

Dufferin County led the development of the 2023 IPM Site Protection and Emergency Response Plan. The plan was published as an annex to the existing Dufferin Country Emergency Management Plan. WDGPH was an active participant in the planning process and part of the unified command structure. In addition, WDGPH developed a Public Health Response Plan that complemented the overall IPM plan and addressed the specific activities involving WDGPH as it related to the management and response to a public health risk during the IPM. At the event site, WDGPH was co-located with partner agencies, such as OPP, fire, and paramedics, and the Dufferin County Command Center. WDGPH participated in twice-daily briefings and was in full communication with the County Command elements through two-way radio, text, and email communication. Although fully prepared to respond to emergencies, the IPM ended without the need to activate the plan for a public health emergency.

## Health Equity Implications

The IPM celebrates agriculture and rural living making the IPM a valued experience for all attendees safely. The IPM and OPA ensured accessibility to as wide a demographic as possible. The 68,336 attendees represented a variety of demographics, including children and the elderly. A foodborne or waterborne illness event would have a much higher impact on these groups. WDGPH's public health ensured a high degree of safety for all 2023 IPM attendees.

## Conclusion

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The 104th International Plowing Match and Rural Expo (IPM) was a success with an attendance of 68,336 over five days. Large events such as the IPM represent a much higher public health risk compared to typical special events. This risk requires additional and unique public health planning. The actions undertaken by WDG Public Health during the planning and event phases resulted in an excellent public health outcome, with no reported cases of food or water-borne illness and no other significant public health-related issues.

## Ontario Public Health Standards

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### Foundational Standards

- Population Health Assessment
- Health Equity
- Effective Public Health Practice
- Emergency Management

### Program Standards

- Chronic Disease Prevention and Well-Being
- Food Safety
- Healthy Environments
- Healthy Growth and Development
- Immunization
- Infectious and Communicable Diseases Prevention and Control
- Safe Water
- School Health
- Substance Use and Injury Prevention



## 2024-2028 WDGPH Strategic Goals

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More details about these strategic goals can be found in [WDGPH's 2024-2028 Strategic Plan](#).

- Improve health outcomes
- Focus on children's health
- Build strong partnerships
- Innovate our programs and services
- Lead the way toward a sustainable Public Health system

## References

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1. Ontario Plowman's Association: Who are We [Internet]. Ontario Plowman's Association; [cited January 8, 2024]. Available from: <https://www.plowingmatch.org/about-us/who-are-we/>
2. Cronut burger illnesses at CNE caused by maple bacon jam [internet]. CBC News; Posted: Aug 27, 2013 11:04 AM EDT | Last Updated: August 27, 2013 [cited January 8, 2024]. Available from: [Cronut burger illnesses at CNE caused by maple bacon jam | CBC News](#)
3. Burning Man revellers begin exodus after flooding left tens of thousands stranded in Nevada desert. [internet] The Associated Press. Posted: Sep 04, 2023 12:40 PM EDT | Last Updated: September 5, 2023 [cited January 8, 2024]. Available from: [Burning Man revellers begin exodus after flooding left tens of thousands stranded in Nevada desert | CBC News](#))

# Appendices

## Appendix A

2023 Major Special Event Inspection Infraction Comparison										
	Orangeville Blues & Jazz Festival Infraction Count	AVG PER INSPECTION	Hillside Festival Infraction Count	AVG PER INSPECTION	Fergus Scottish Festival Infraction Count	AVG PER INSPECTION	Elora Riverfest Infraction Count	AVG PER INSPECTION	2023 IPM Infraction Count	AVG PER INSPECTION
# of inspections in sample	21 inspections		20 inspections		41 inspections		22 inspections		33 inspections	
1. Handwashing stations appropriately equipped / used	1	5%	1	5%	3	7%	1	5%	2	6%
2. Hazardous food stored at 4°C (40°F) or less	3	14%	1	5%	1	2%	1	5%	0	0%
3. Approved food products	0	0%	0	0%	0	0%	0	0%	0	0%
4. Frozen hazardous food maintained frozen	0	0%	0	0%	1	2%	0	0%	0	0%
5. Hazardous food thoroughly cooked	1	5%	0	0%	0	0%	0	0%	0	0%
6. Hazardous food hot held at 60°C (140°F) or higher	1	5%	0	0%	0	0%	0	0%	2	6%
7. Accurate indicating thermometers in use	0	0%	0	0%	1	2%	0	0%	0	0%
8. Food protected from contamination / adulteration	0	0%	0	0%	1	2%	0	0%	1	3%
9. Food contact surfaces cleaned and sanitized	5	24%	3	15%	0	0%	1	5%	1	3%
10. Proper manual dishwashing procedure / sanitizer & test kit.	0	0%	1	5%	0	0%	0	0%	0	0%
11. Food premise maintained in a clean and sanitary manner	1	5%	1	5%	0	0%	0	0%	0	0%
12. Garbage & wastewater properly handled / disposed	0	0%	0	0%	1	2%	0	0%	0	0%
13. At least one certified food handler is present	1	5%	1	5%	0	0%	0	0%	1	3%
Total Infraction / CDI Count	13		9		8		3		7	
Total Infraction / CDI Count Per Total Opportunities*	0.05		0.03		0.02		0.01		0.02	

An Opportunity is an 'opportunity to demonstrate compliance' and is defined as the total number of inspection items (e.g. hand washing, sanitizing, etc..) assessed (13 in this case) times the number of inspections conducted at the event. For example, 13 items on the inspection checklist X 10 inspections results in 130 opportunities