DEPARTMENT OF HEALTH PESTICIDE ILLNESS DATA
PESTICIDE APPLICATION SAFETY WORKGROUP
JUNE 21, 2018

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- Office of Environmental Public Health Sciences
- Washington State Department of Health

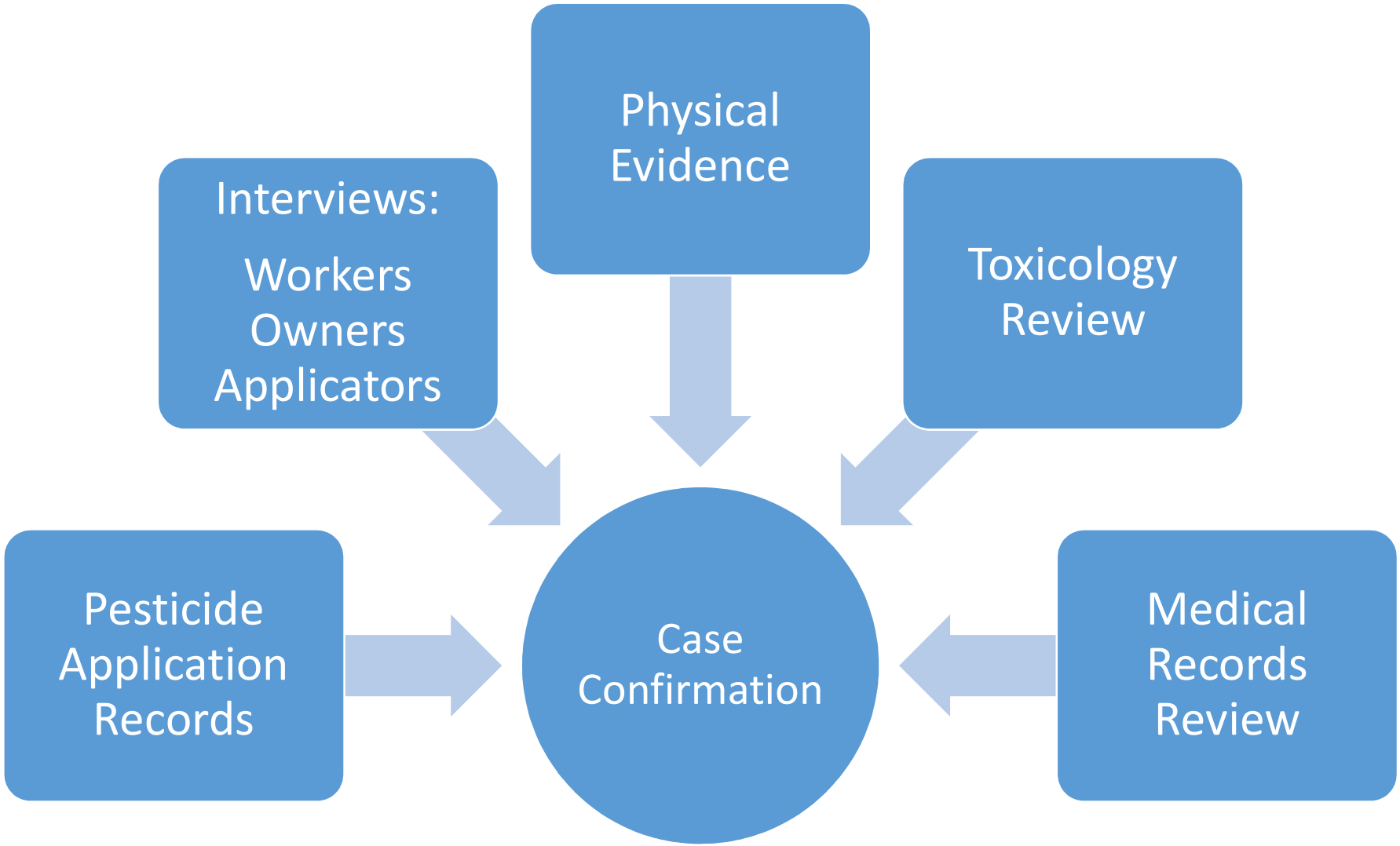
What DOH investigates

- Reports of acute adverse health effect resulting from a specific pesticide exposure incident
  - Acute (short-term) effects show up immediately or soon after exposure to the chemical
  - Common health effects: headache, nausea, vomiting, cough, congestion, dizziness, weakness, eye and skin irritation, rash

Case Reporting Sources

- Department of Labor and Industries
- Department of Agriculture
- Washington Poison Control Center
- Reports of Illness from the Public
- Health Care Providers

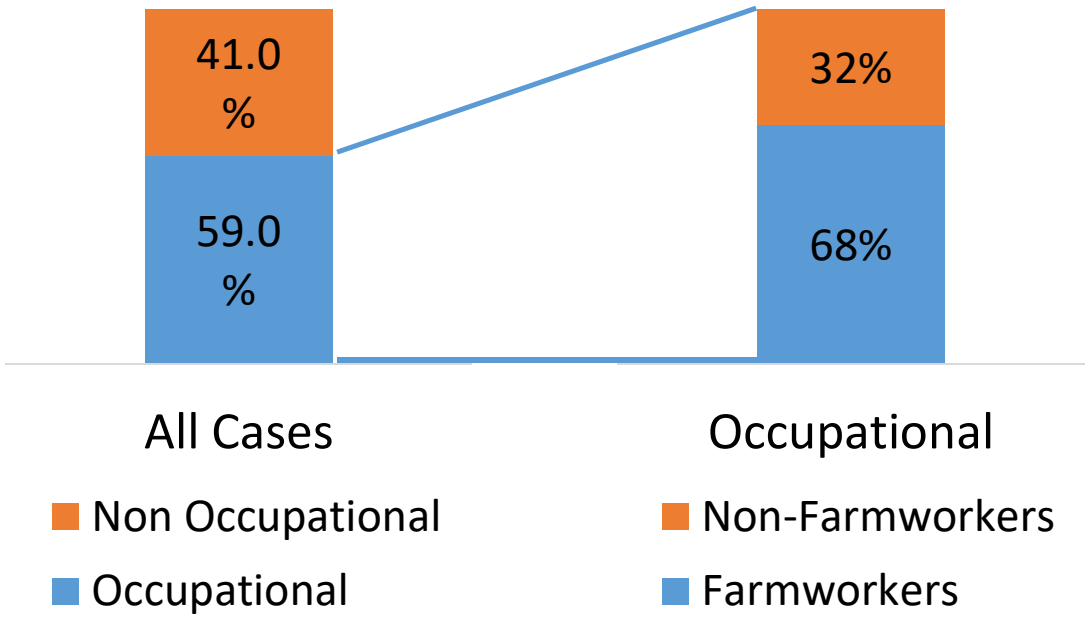
Investigation Procedure



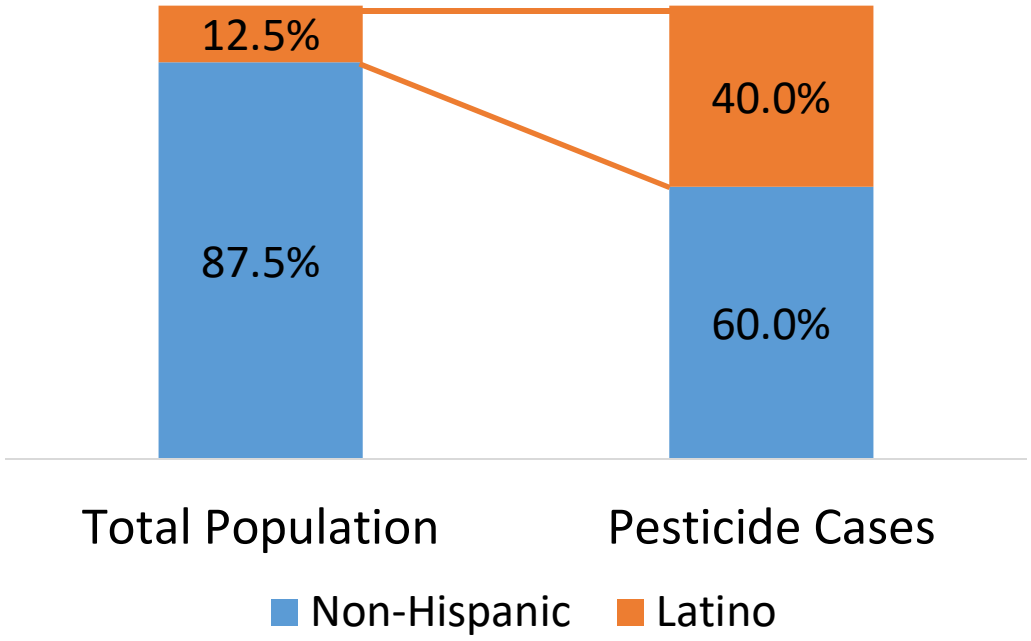
Investigation Goals

- Prevent pesticide related illnesses
  - Public health monitoring, not compliance
  - Determine if illness is related to pesticides
  - Understand root causes
- Provide access to pesticide illness data
  - Share case studies and surveillance findings with health care providers, pesticide applicators and others
  - Develop articles, reports, news releases, web-based information, and contribute to Washington Environmental Health Tracking Network's data display

Pesticide Illness Cases 2010 – 2016



Pesticide Illness as a Health Disparity

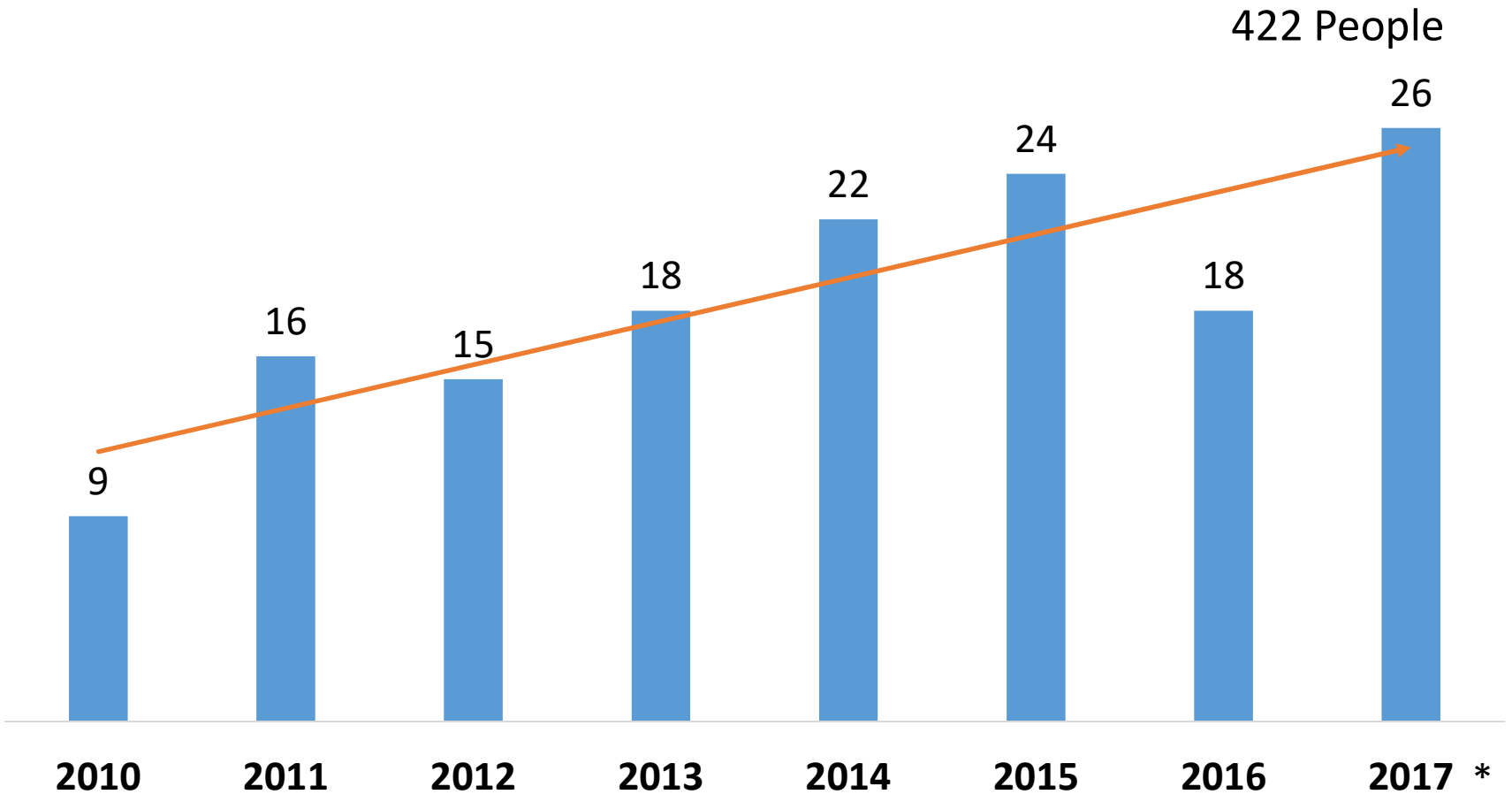


Pesticide Illness Data (2010-2016)

Root Causes of Pesticide Illness Among Farmworkers 2010 - 2016

Root Causes in Farmworker Cases	Count
Drift	287
Notification/posting lacking or ineffective	164
Decontamination not adequate or timely	131
Label violation (NOS)	114
Required PPE not worn or inadequate	76
No label violation identified but person still exposed/ill	75
Applicator not properly trained or supervised	47
Application equipment failure	22
Spill/splash of liquid or dust (not involving application equipment)	22
People were in the treated area during application	22
Early re-entry	15

Pesticide Drift Events



* 2017 data is provisional

Thank You

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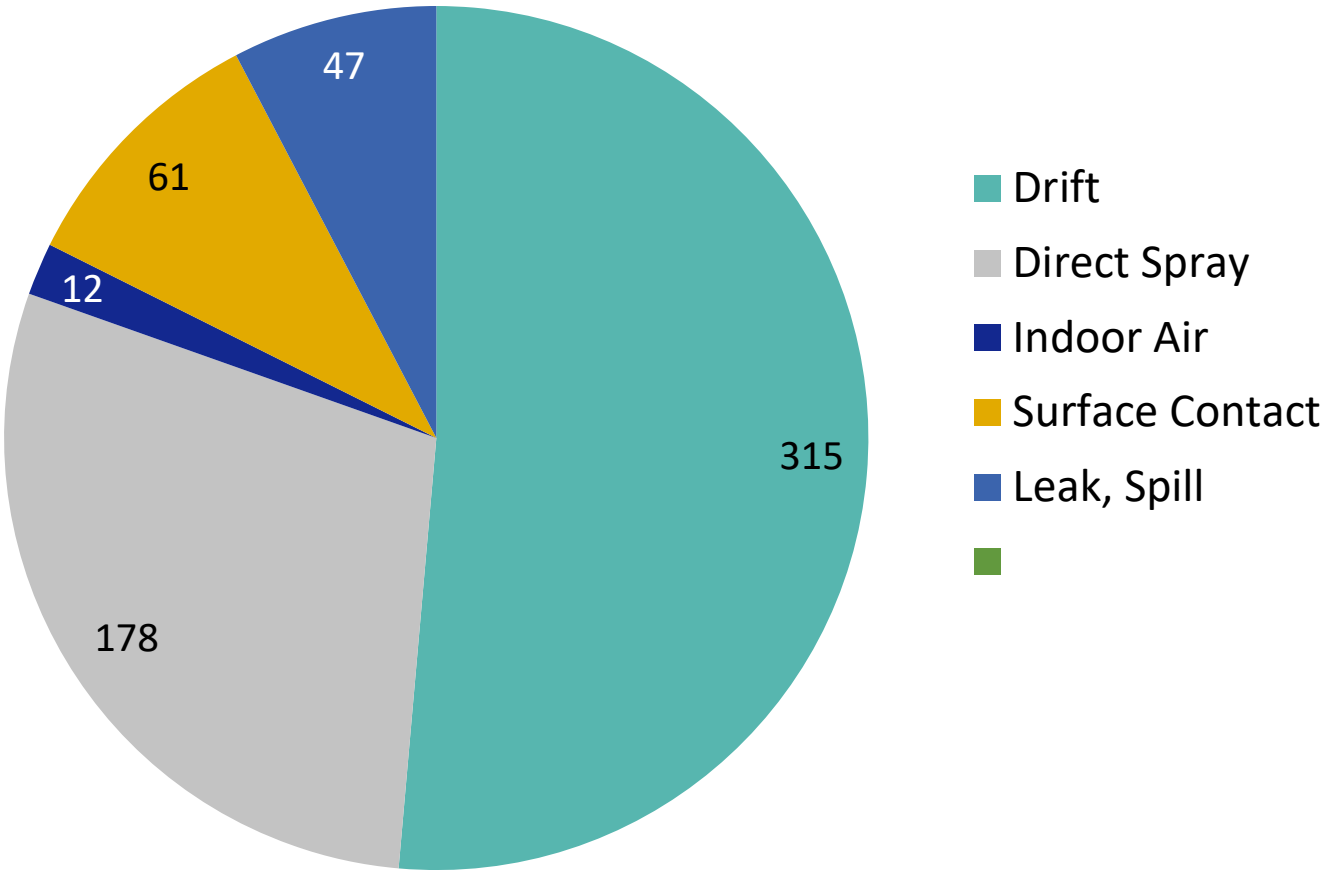
Extra Slides

Exposure Types and Pesticide Illness Among Farmworkers 2010 – 2017*



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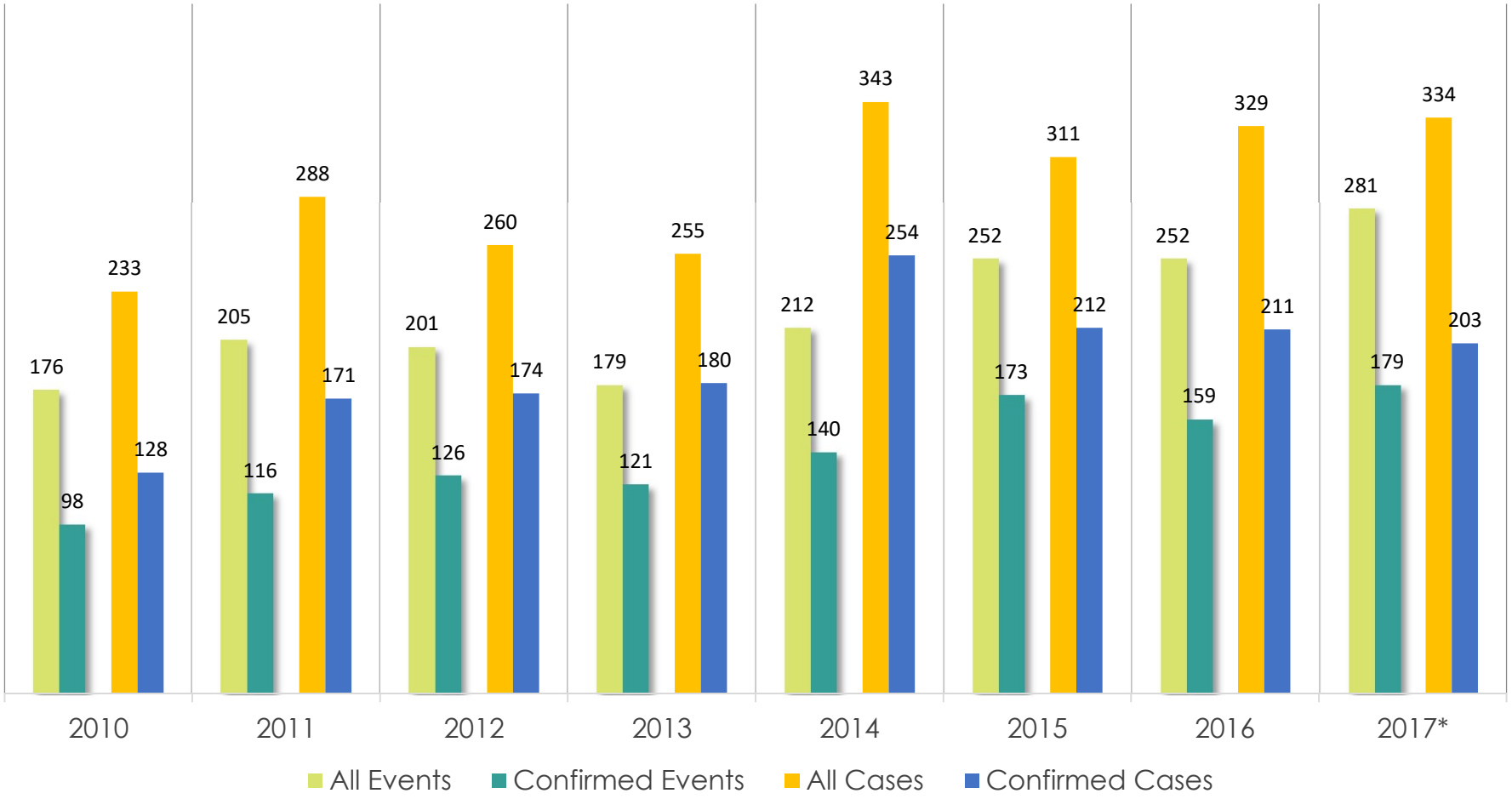
Conclusions

Factors that repeatedly appear as key contributors to illness in farmworker and other cases:

- Pesticides are toxic.
- Airblast sprayers and aerial applications pose higher risk for drift.
- Communication at many levels is lacking or insufficient.
- Farmworkers felt unable to move from assigned worksite.
- Timely decontamination is lacking in some situations.

Events and Cases (2010-2017*)



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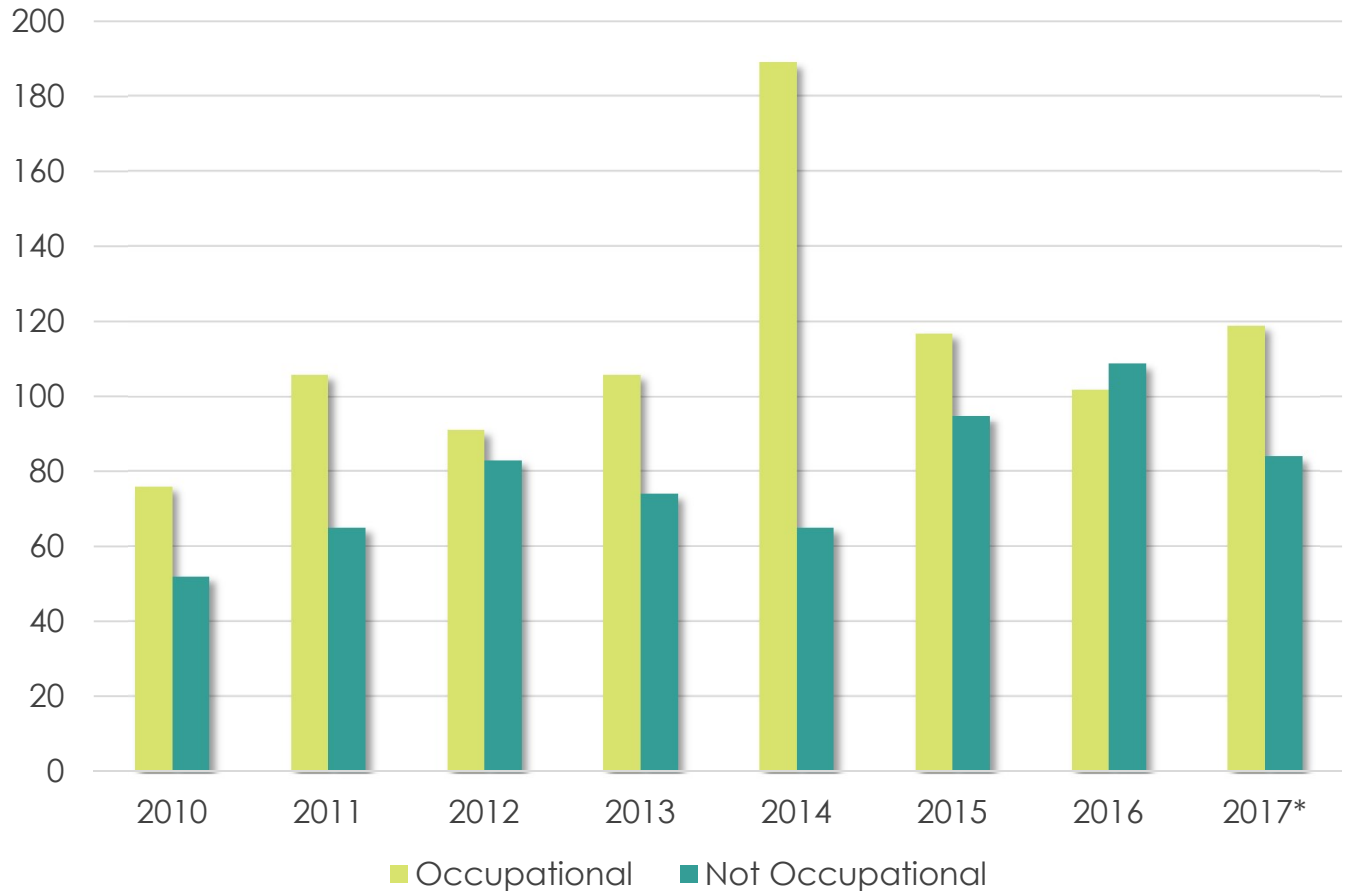
Occupational and Non-Occupational Cases



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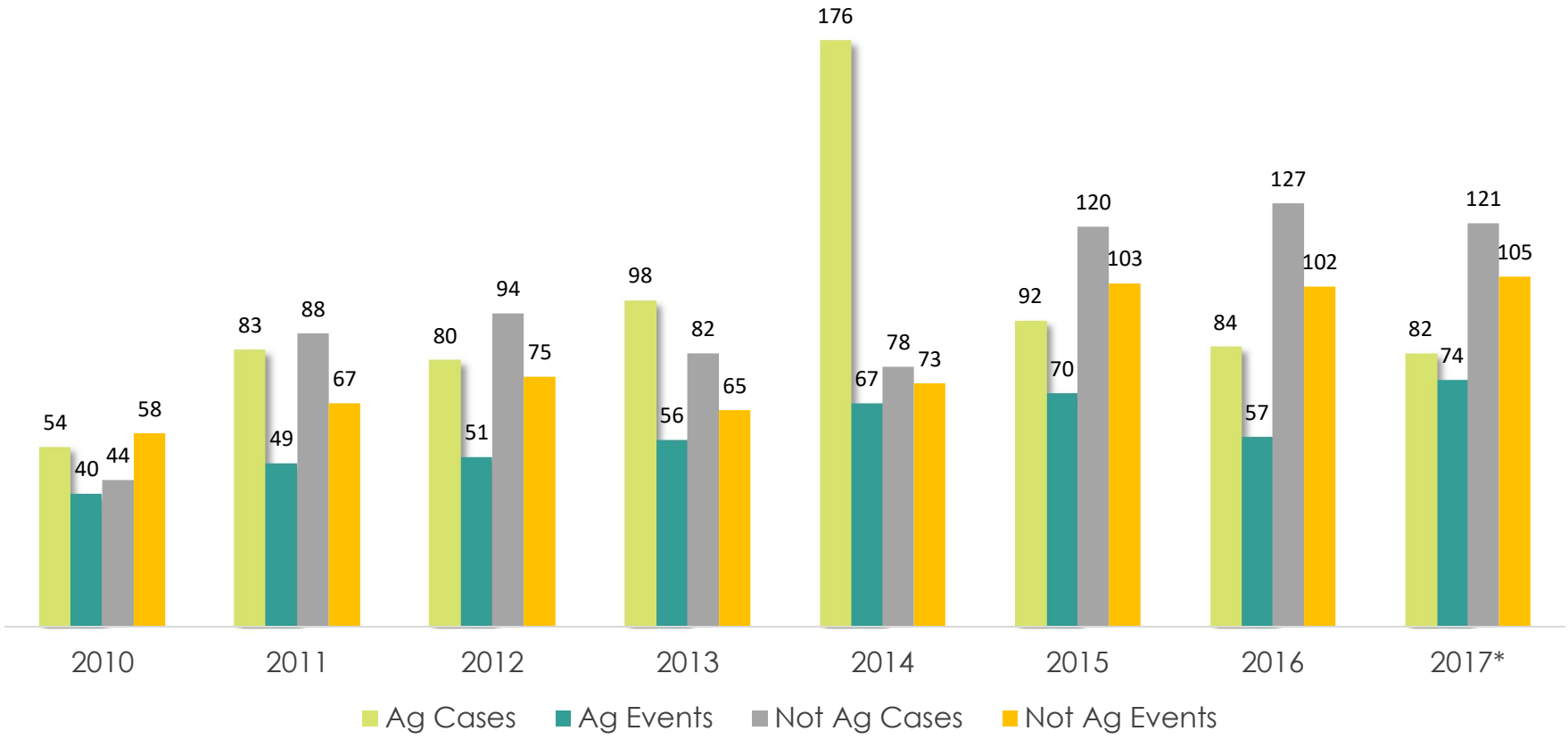
Equipment Type - All Confirmed Cases: 2010 - 2016

Equipment Type	2016	2015	2014	2013	2012	2011	2010	Total
High pressure ground sprayers	33	32	70	66	37	44	30	312
Aerial application	14	21	71		16	24	5	151
Other	23	21	11	12	15	12	17	111
Unknown	19	26	9	25	6	10	9	104
Low-pressure ground sprayer (nos)	8	19	14	14	11	16	5	87
Manual placement	12	19	15	14	12	6	9	87
Pressurized can	29	18	11	7	11	4	5	85
Spray line, hand held	19	13	14	9	9	7	12	83
Handheld units used for spot spraying	20	16	7	10	6	14	7	80
Total release fogger	6	11	7	12	5	15	4	60
Backpack sprayer	5	5	9	4	13	10	3	49
Soil injector	6		4	1	21		2	34
Hand held granular or dust applicator	3	1	1	1	7	1	9	23
Aerosol generator or fogger	5	6	1	2	1	4	1	20
Multiple types	3		6	1		1	5	16
Dip tank or tray	6	2	2		2	2	1	15
Chemigation		2	1	1	1	1	4	10
High pressure fumigator other than soil injector			1	1	1			3
Total	211	212	254	180	174	171	128	1330

Confirmed Agricultural Cases* and Events



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