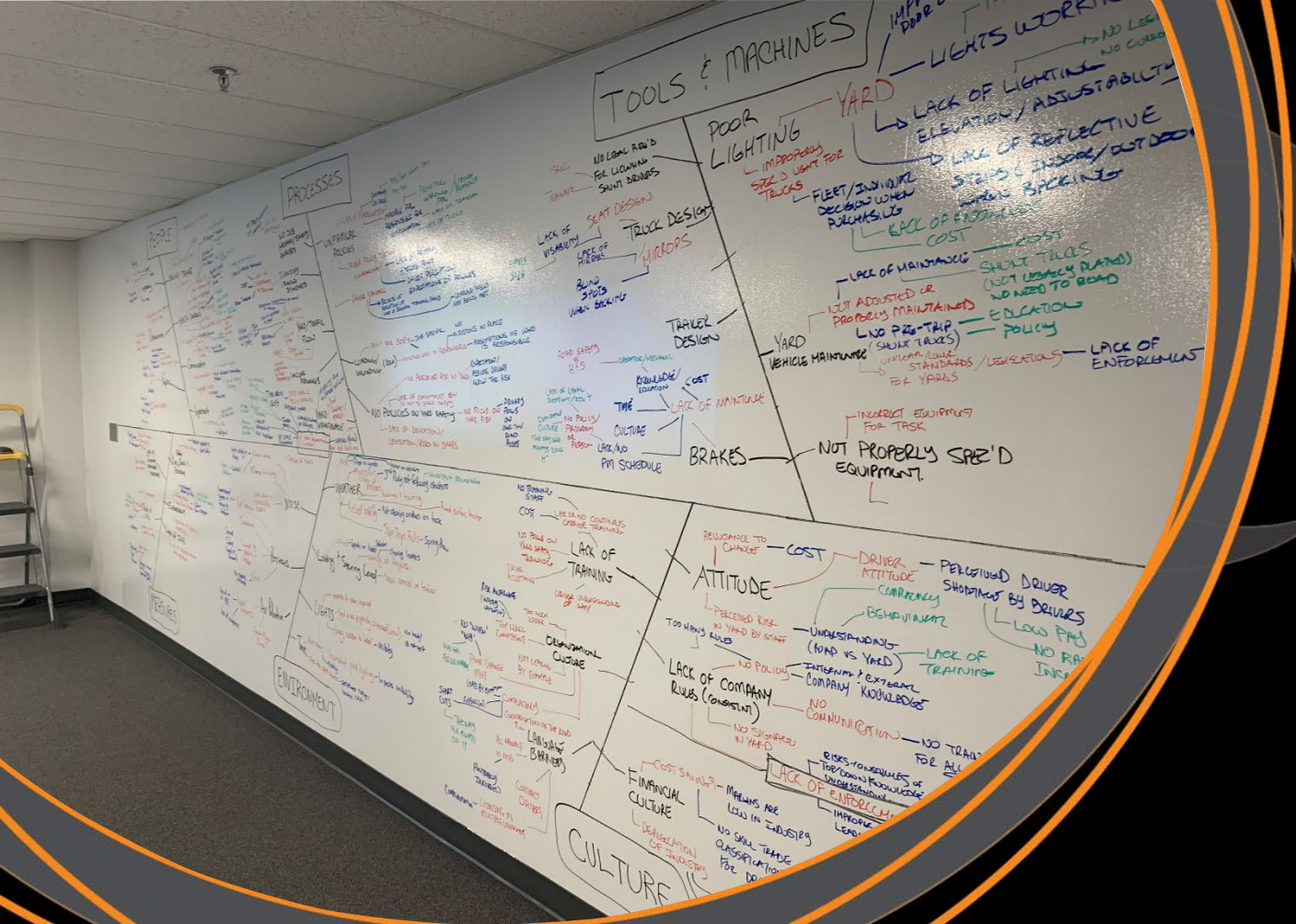

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Work Safe for Life

Root Cause Analysis Report
General Trucking: Yard Safety

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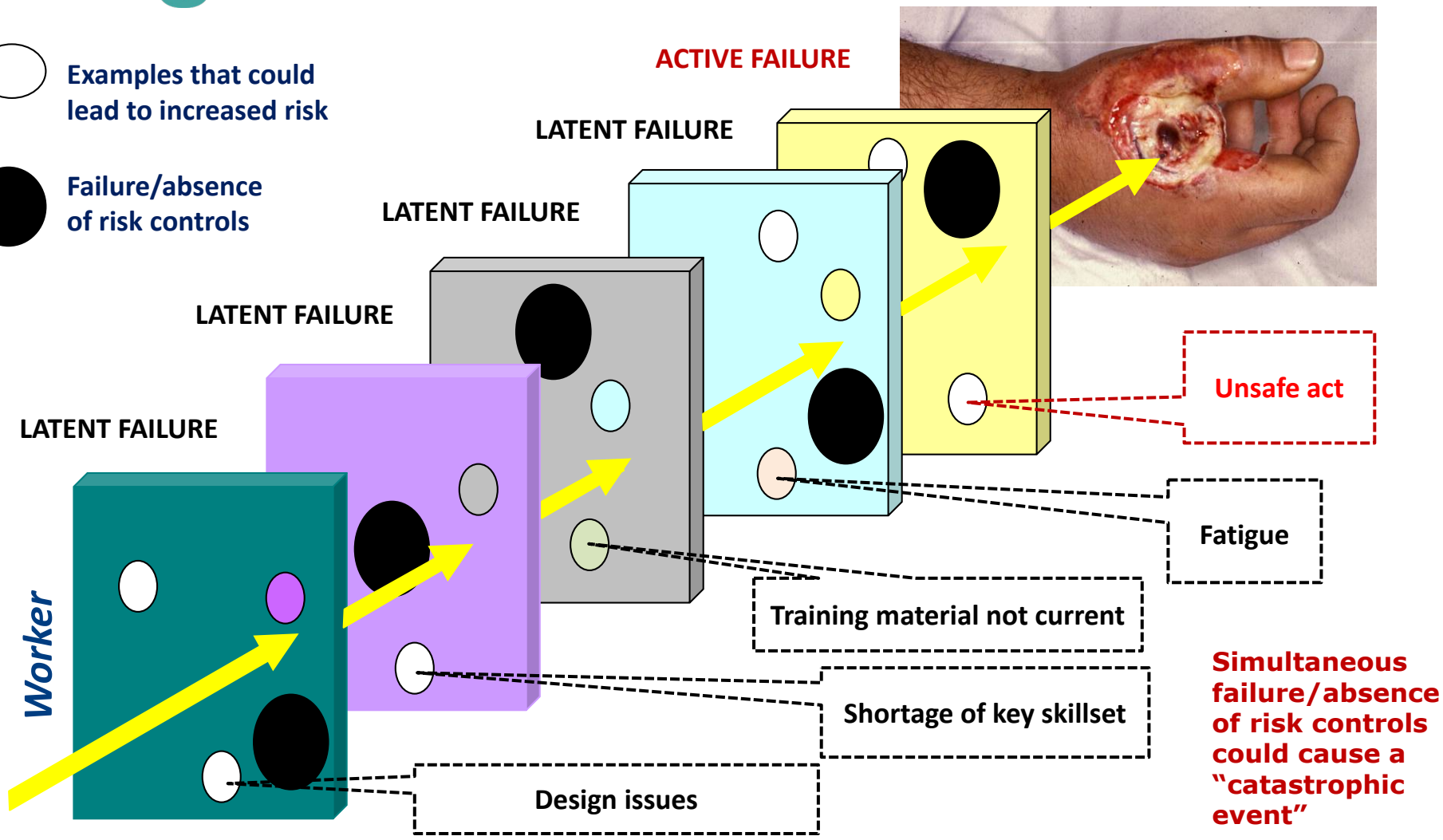
The Swiss Cheese Model of Accident Causation

Ontario

Examples that could lead to increased risk

Failure/absence of risk controls



Simultaneous failure/absence of risk controls could cause a "catastrophic event"

2019 Risk Assessment Results

Risk Rank	Category	Event (Situation or Condition) that could result in Injury or Illness OR "What could keep you up at night?"	Risk
1	Environmental	Distracted Driving	
2	Fatigue	Driver Fatigue	
3	Awareness	Careless drivers on the road (other truck drivers, other motorists)	
4	Awareness	Lack of truck awareness training for average everyday car drivers sharing the roads with the trucking industry	
5	Environmental	Driving conditions	
6	Slips, Trips and Falls	Slips, trips and falls	
7	Psychosocial	Stress	
8	Training	Inadequate or insufficient training/skills/qualifications	
9	Occupational Illness	Illness resulting from the lifestyle of a long-distance truck driver	
10	Slips, Trips and Falls	Working at heights (tarping loads)	

Why Yard Safety?

2019 saw an alarming number of yard incidents

- Sharp Transportation: Baden truck driver dies in Cambridge workplace accident
- Kriska Transportation: Man fatally struck by transport truck at Mississauga logistics company
- Bison Transportation: Family mourning loss of father of two killed in workplace accident
- Aurora Yard: Man killed in accident at trucking yard
- Pickering Incident: Truck driver dead after being run over while working under vehicle

Root Cause Timeline

Root Cause Workshop: Steps	Duration
Peer recognized SME's identified	Weeks 1 – 3
Invitation is sent to SME's and workshop scheduled	Week 4
Workshop materials prepared and distributed. Venue (or virtual) arranged	Weeks 5 – 6
2-day root cause workshop facilitated	Week 7
Top 10 results validated	Weeks 8 – 9
Final report prepared	Week 10
Final report prepared	Week 10

Defined Risk Statement

Yard related hazards can pose serious unintended adverse effects to the safety and well-being of the driver, carrier, fellow worker or community member

The Collaborative Workshop Process

- Workshop participants were peer-recognized industry/system experts
- Workshop process was open, transparent and collaborative
- Ranking/prioritization of causal factors was done using Employer and Worker votes only (Government & IHSA do not vote)
- Due to COVID-19 the workshop was facilitated virtually

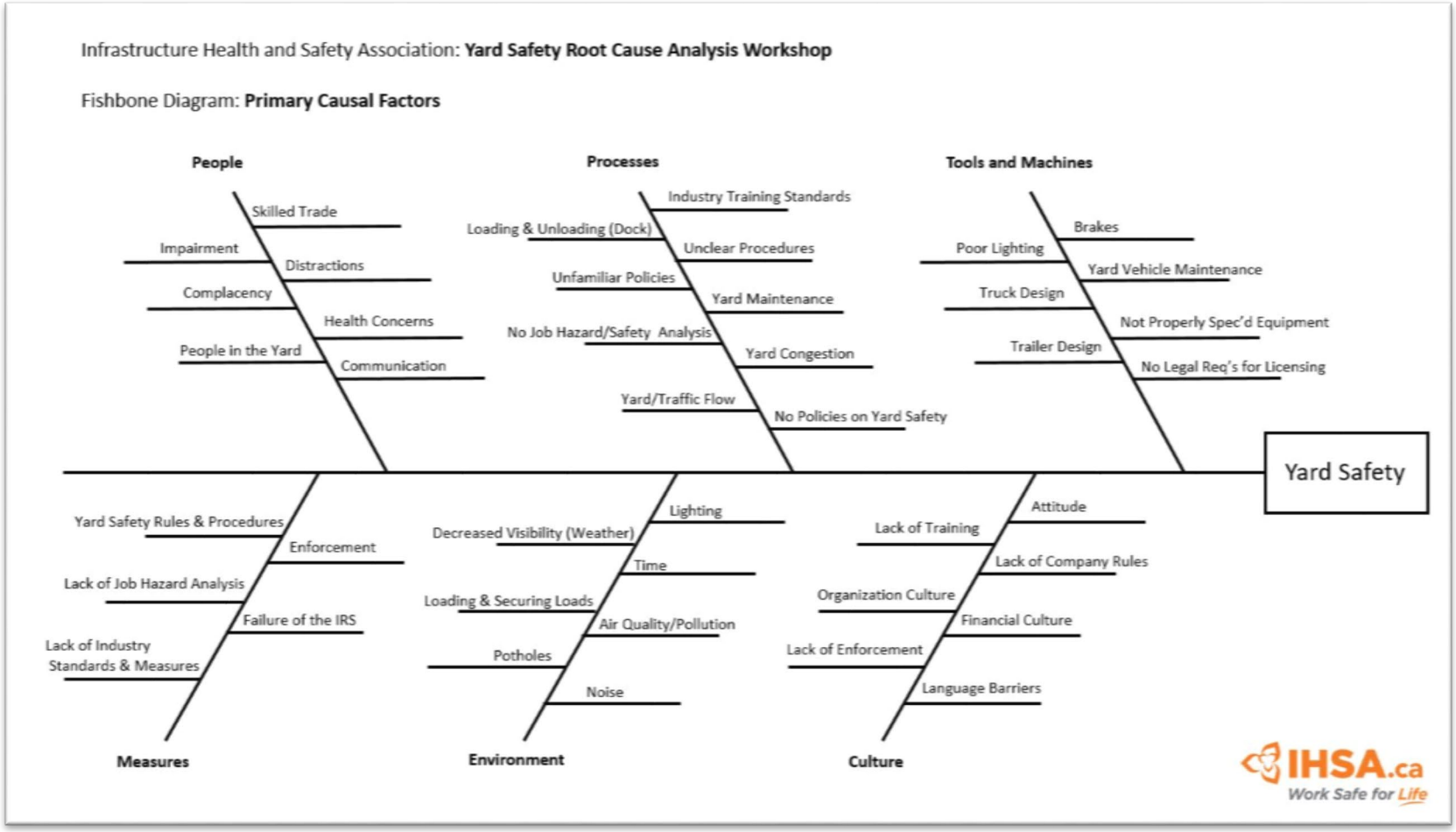
Industry Subject Matter Experts

Workers

Management

Industry System Partners

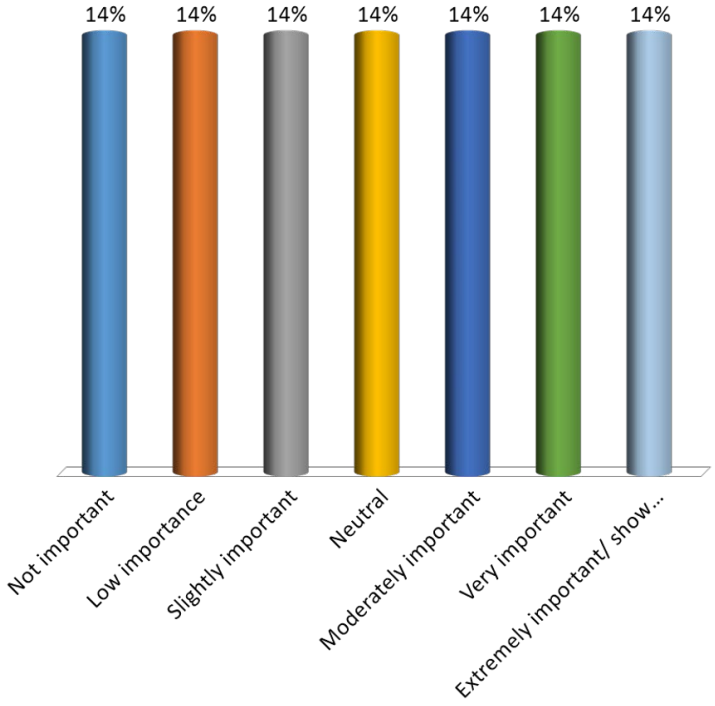
Fishbone Diagram: Primary Factors



The Voting Process

How important is Poor Lighting to you on a scale of 1 to 7 in terms of Yard Safety in the General Freight sector?

1. Not important
2. Low importance
3. Slightly important
4. Neutral
5. Moderately important
6. Very important
7. Extremely important/ show stopper

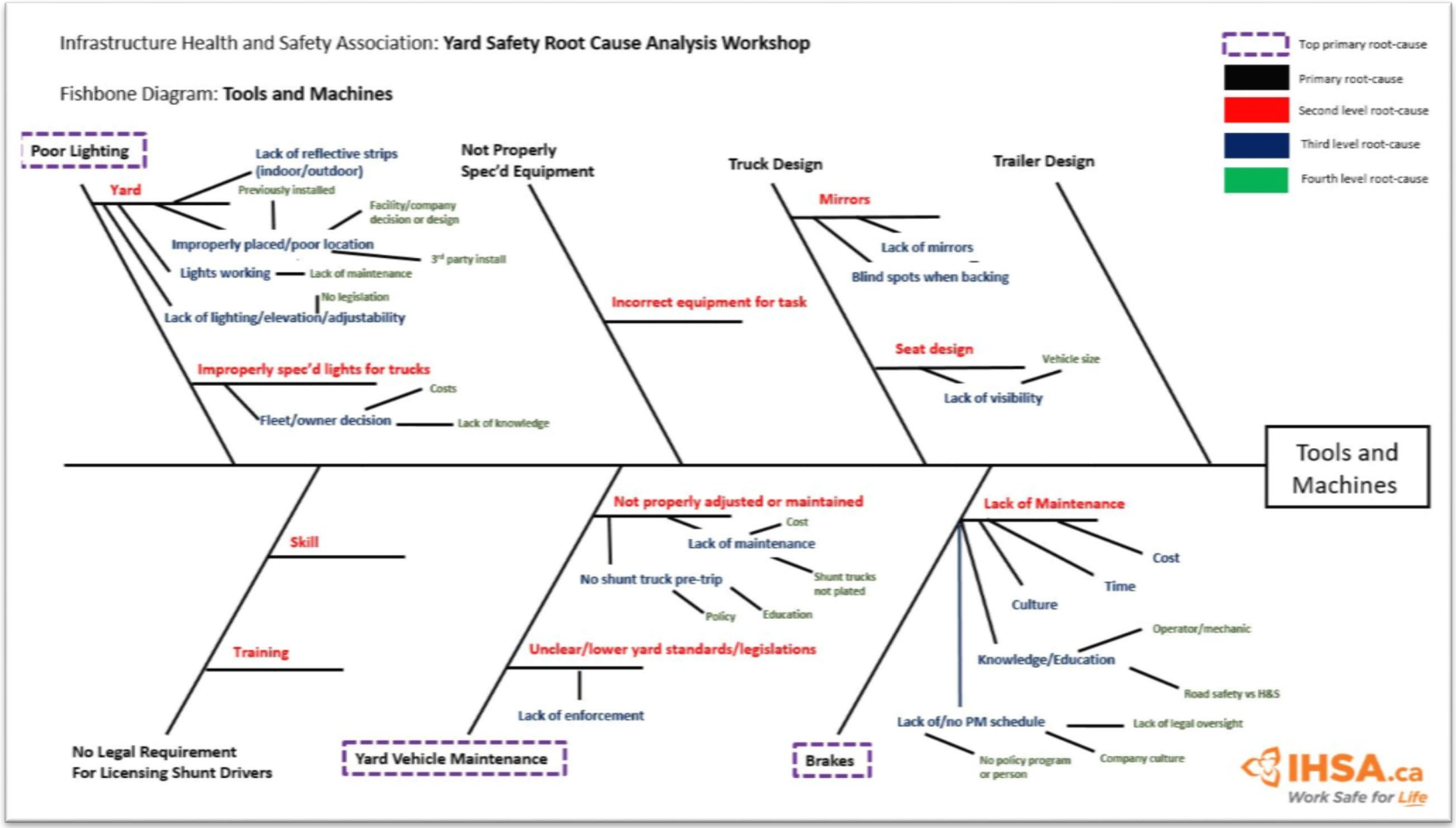


Top (Priority) Primal Causal Factors: Yard Safety

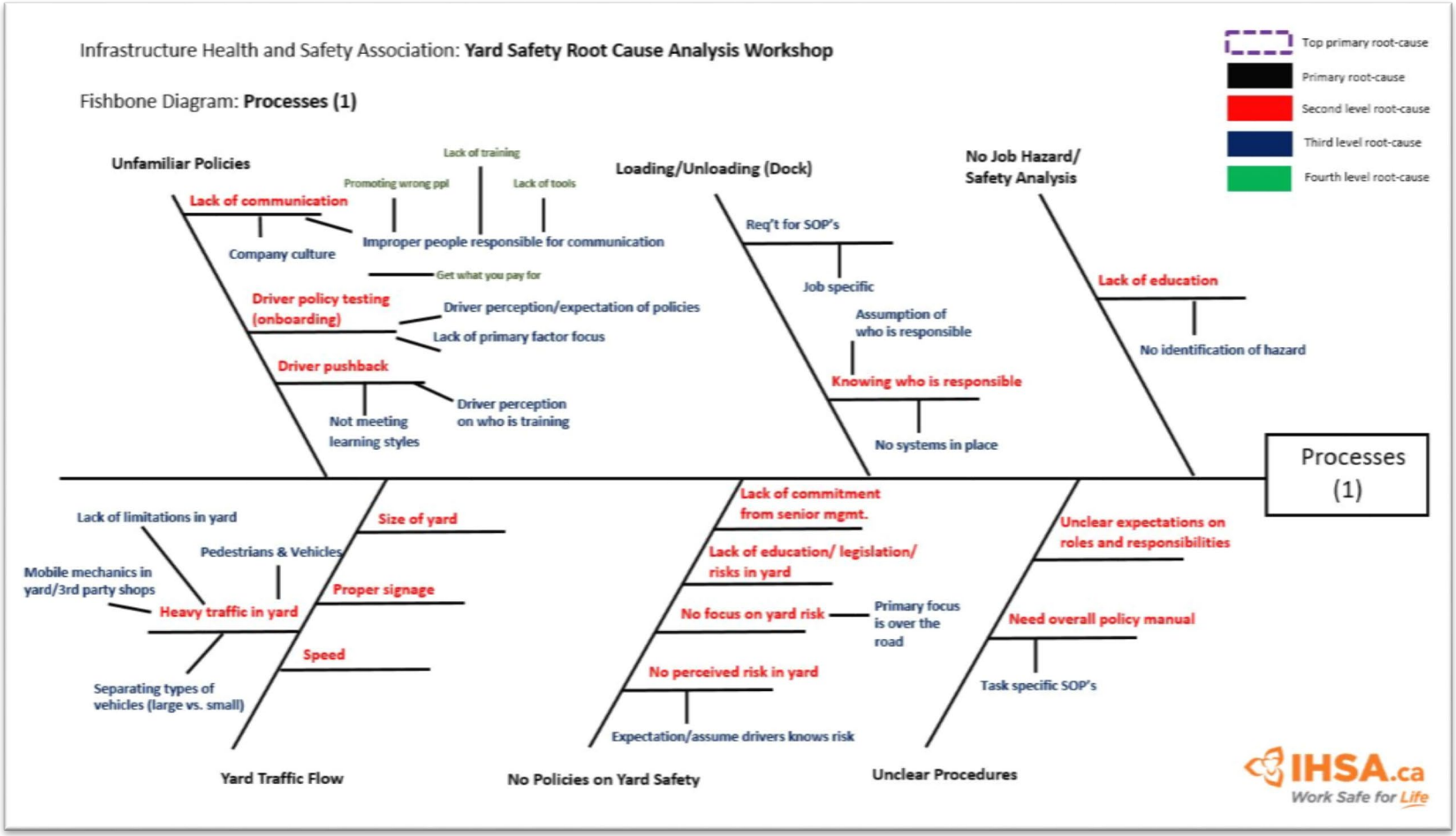
Priority	Category	Primary Causal Factor
1	Tools and Machines, Environment	Poor Lighting/Lighting
2	Culture	Lack of Training
3	People	Non-classification as skilled trade
	Tools and Machines	Brakes
4	Culture	Attitude
	Processes	Unclear or Lack of Industry Training Standards and Measures
	Culture	Unclear or Lack of Yard Safety Rules, Policies and Procedures
5	People	Distractions
6	Tools and Machines	Yard Vehicle Maintenance
	Culture	Language Barriers and Communication
	People	Complacency
7	People	Impairment
8	People	Health Concerns
	Environment	Time
9	People	People in the Yard
10	Processes	Yard Maintenance and Congestion
	Environment	Loading and Securing Loads
	Culture	Organizational Culture

* **Note**: Some of the ranked numbers have multiple causes listed, as they resulted in a tie during the formal voting process

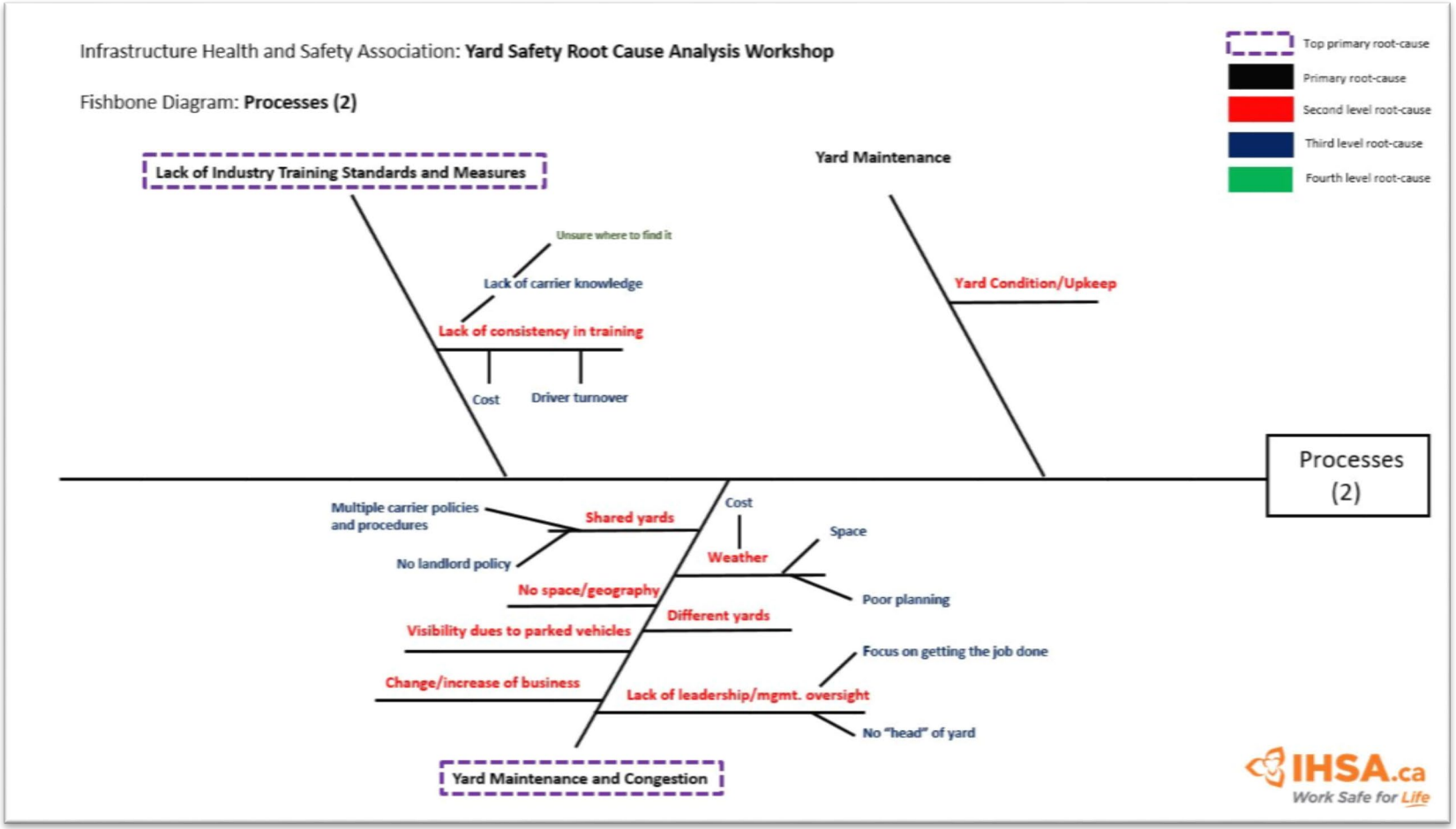
Fishbone Diagram: Tools & Machines



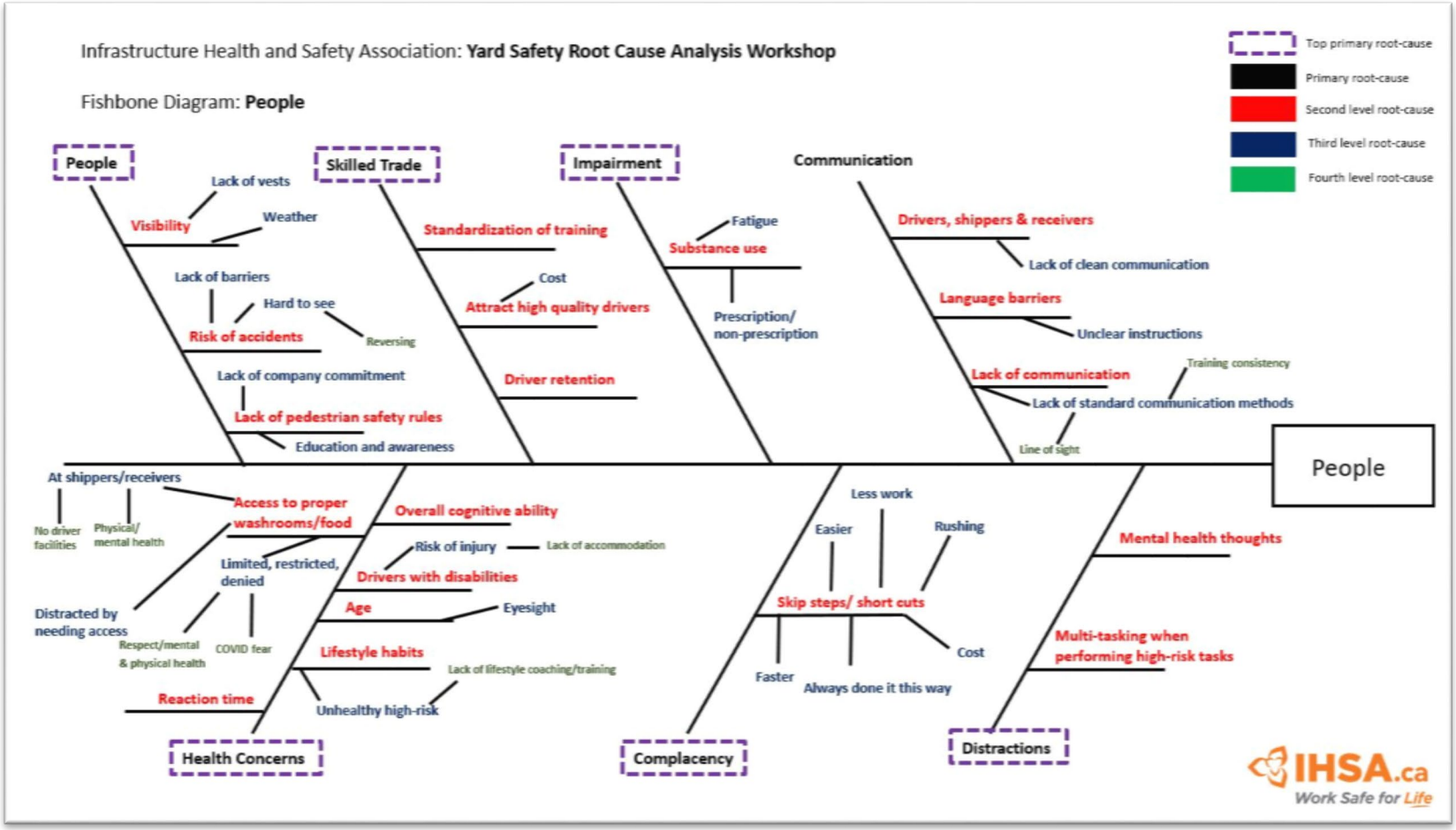
Fishbone Diagram: Processes (1)



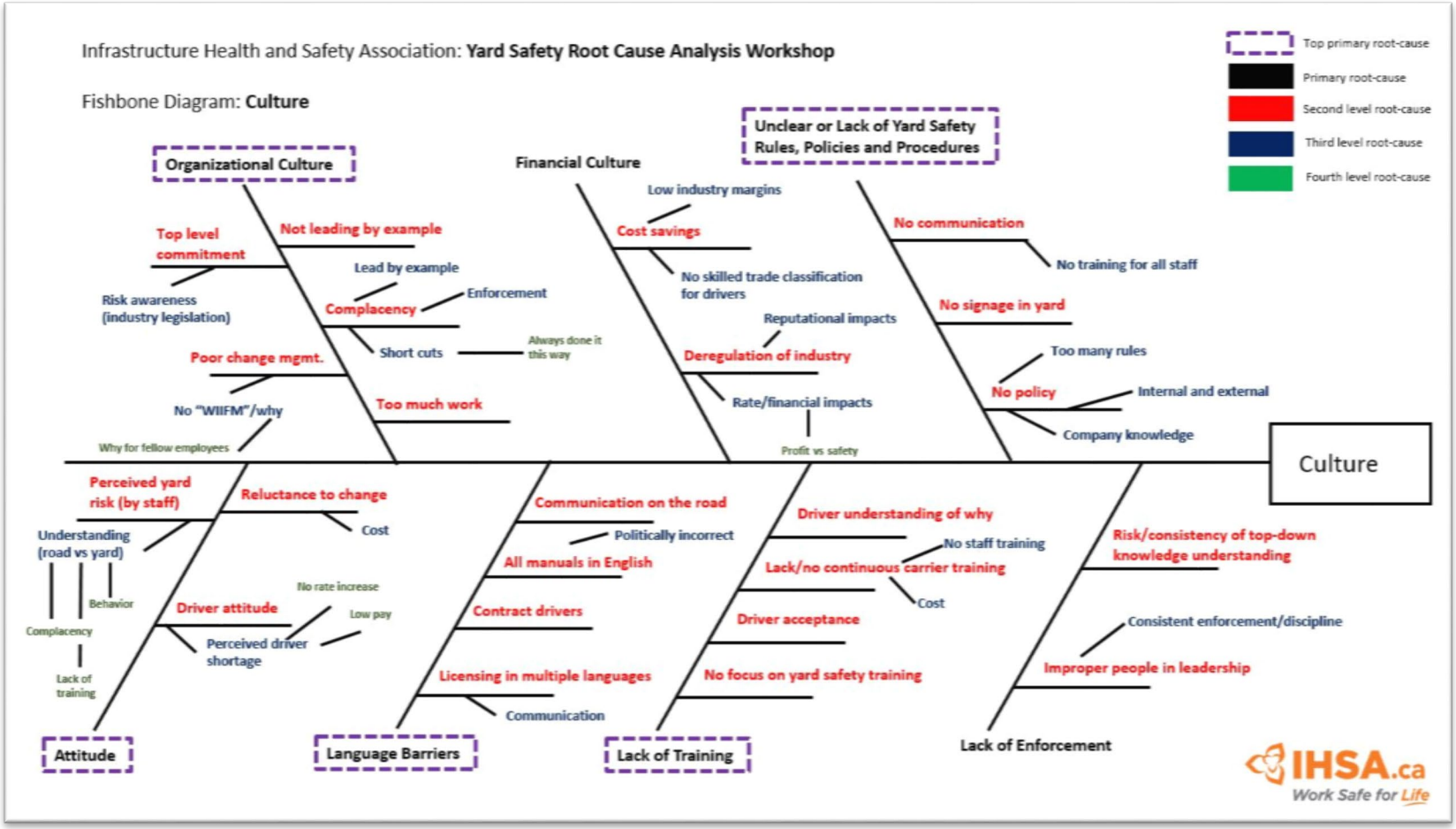
Fishbone Diagram: Processes (2)



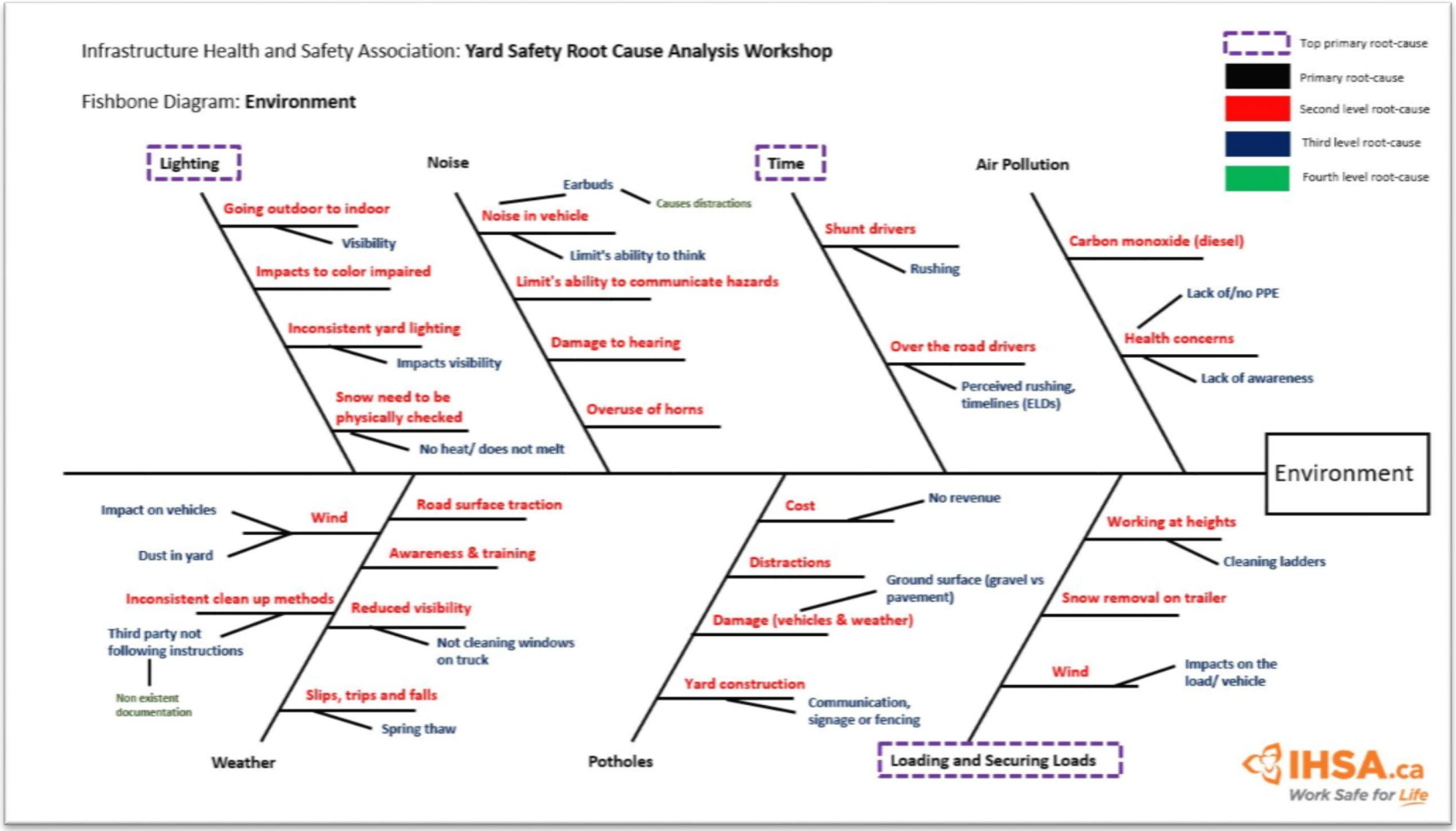
Fishbone Diagram: People



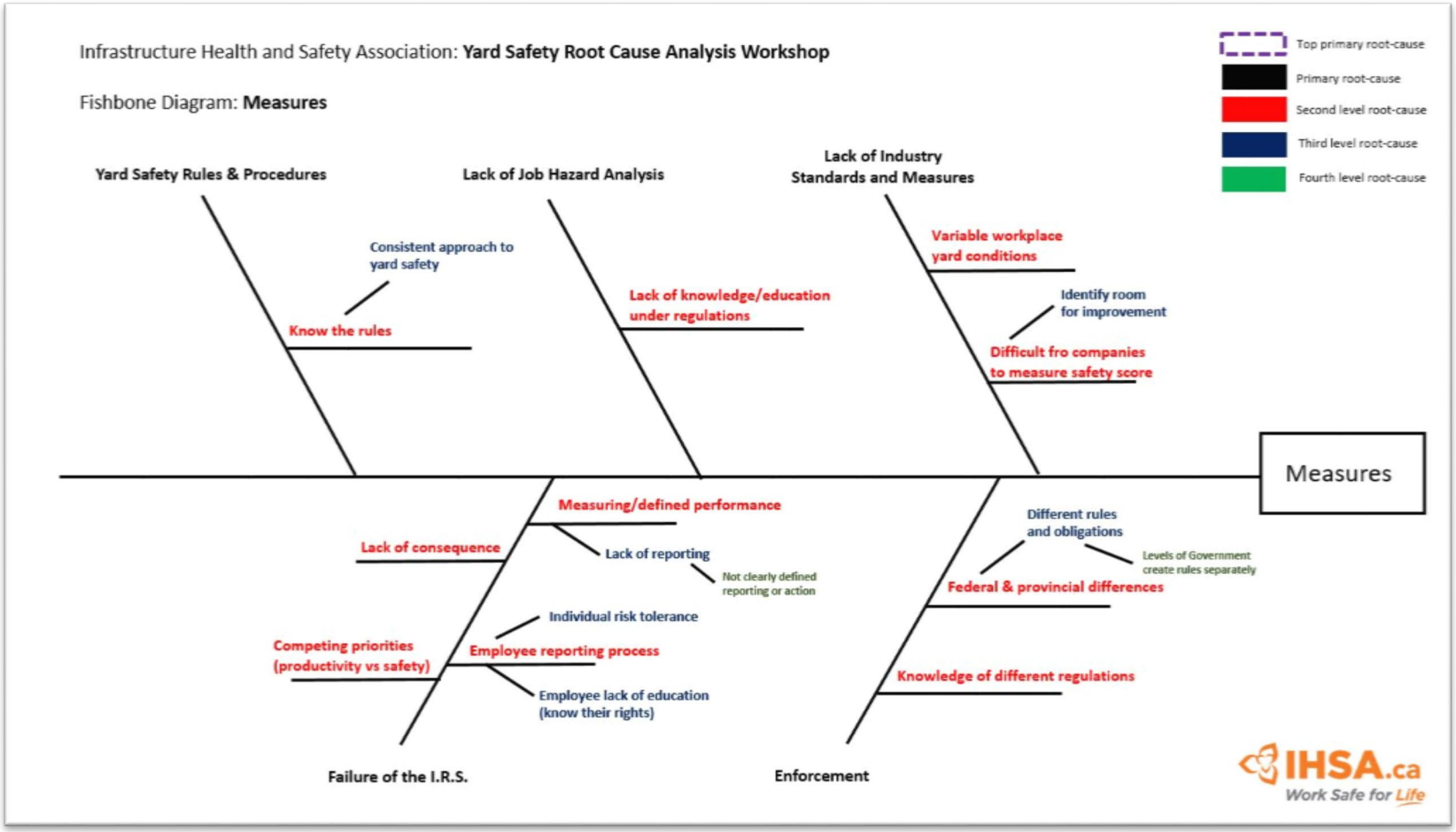
Fishbone Diagram: Culture



Fishbone Diagram: Environment



Fishbone Diagram: Measures



Management & Labour Comparison

Management

	Category	Primary Root-Cause	Avg
1	Tools & Machines, Enviornment	Poor Lighting/Lighting	6.80
2	Culture	Attitude	6.20
3	People	Distractions	6.20
4	Culture	Lack of Training	6.00
5	Processes	Lack of Industry Training Standards and Measures	6.00
6	Culture	Unclear or Lack of Yard Safety Rules, Policies and Procedures	6.00
7	People	Complacency	6.00
8	People	Skilled Trade	5.80
9	Tools & Machines	Brakes	5.80
10	People	Health Concerns	5.80
11	Tools & Machines	Yard Vehicle Maintenance	5.60
12	Culture	Language Barriers and Communication	5.60
13	Environment	Time	5.60
14	People	People in the Yard	5.60
15	Processes	Yard Maintenance and Congestion	5.60
16	Environment	Loading and Securing Loads	5.40
17	Culture	Organizational Culture	5.40
18	People	Impairment	5.20

Labour

Avg		Category	Primary Root-Cause
6.40	1	Culture	Lack of Training
6.40	2	People	Skilled Trade
6.40	3	Tools & Machines	Brakes
6.20	4	Processes	Lack of Industry Training Standards and Measures
6.20	5	Culture	Unclear or Lack of Yard Safety Rules, Policies and Procedures
6.20	6	People	Impairment
6.00	7	Tools & Machines, Enviornment	Poor Lighting/Lighting
6.00	8	Culture	Attitude
6.00	9	Tools & Machines	Yard Vehicle Maintenance
6.00	10	Culture	Language Barriers and Communication
5.80	11	Environment	Time
5.80	12	Environment	Loading and Securing Loads
5.80	13	Culture	Organizational Culture
5.60	14	People	Complacency
5.60	15	People	Health Concerns
5.60	16	People	People in the Yard
5.60	17	Processes	Yard Maintenance and Congestion
5.40	18	People	Distractions

Legend: **Management** scored higher **Labour** scored higher

Focus on Systemic Weaknesses

1. Classify trucking as a skilled trade
2. Review and address critical training gaps in M.E.L.T.
3. Establish yard safety protocols
4. Greater enforcement of non-compliant carriers
5. Promote mental health and wellness

Workshop Contacts

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