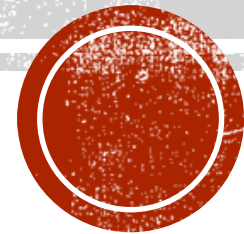


# **SUSTAINABLE LABS INSPECTION RESULTS**

SLWG Update September 2018



# AGENDA

- Context
- Observations
  1. Green Chemistry
  2. Resource efficiency
  3. Environmental handwashing soap
  4. PI Sharing Chemicals
  5. Efficient use of equipment
  6. Recycling bins available
- Conclusions/Next steps



# CONTEXT

## 2017

- Inspections conducted by EHS from February – August 2017
  - 5 buildings
    - SAD
    - Genome
    - MCMED
    - Life Sciences
    - Duff
  - 12 McGill units
    - Total N=75

## 2018

- Inspections conducted by EHS from February – July 2017
  - 7 buildings
    - CINE
    - MCMED
    - Centennial Centre
    - Mac-Stewart
    - STBIO
    - Parasitology
    - Raymond
  - 9 McGill units
    - Total N=70



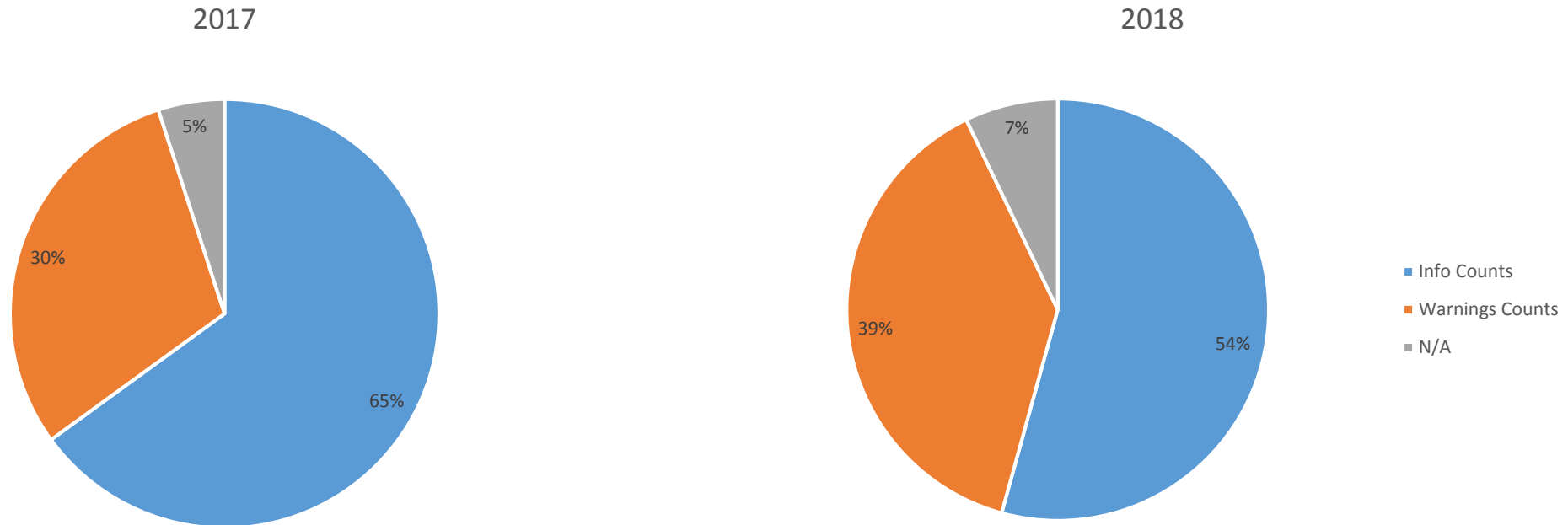
# METHODOLOGY

- Manual data entry from PDF forms
  - February 2017
    - Units:
      - Anatomy and Cell Biology
      - Center for Research on Pain
      - Oral Biology
      - Dentistry
      - Facility for Electron Microscopy Research
    - N=15
  - March-mid-May 2017
    - Units:
      - Animal Resource Center
      - Biochemistry
      - Biochemical Engineering
      - Oncology
      - Physiology
      - Goodman Cancer Research Center
    - N=40
- Data entry directly through myLab module by EHS inspectors
  - Mid-June thru mid-August 2017
    - Units:
      - Physiology (continued)
      - Microbiology & immunology
    - N=20
  - All 2018 data
- Notes/potential limitations
  - Data not reviewed for quality control (not QC'd)
    - Variance in responses and detail observed between inspector reports, missing data
  - Different departments inspected this cycle
    - Potential difference in lab types/culture impacting results
  - Excel rounding → variance in pie chart #s



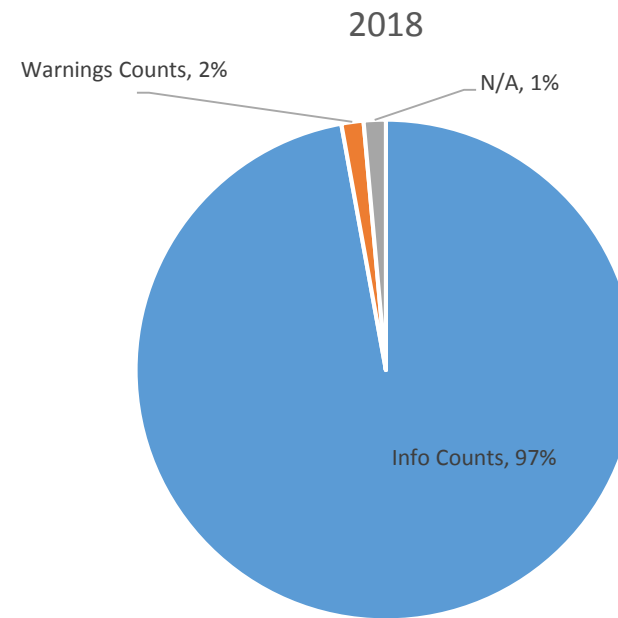
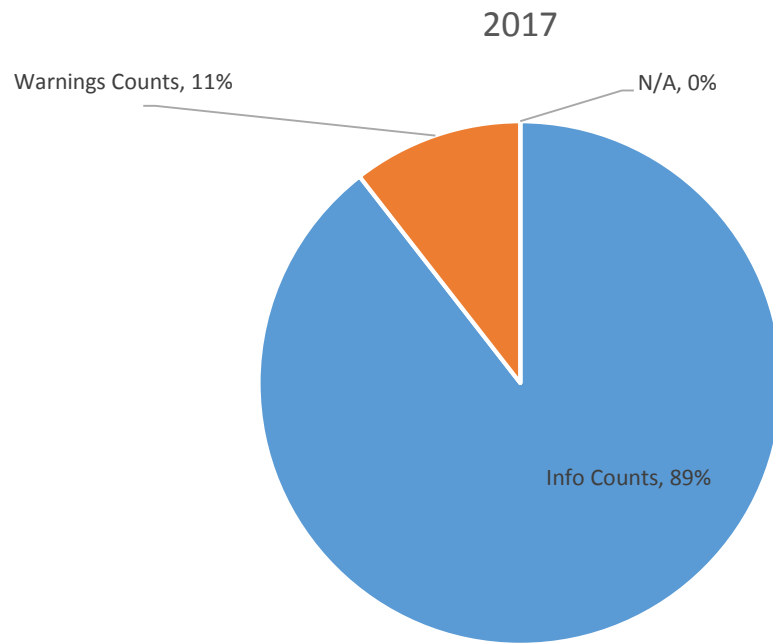
# PRELIMINARY RESULTS (NO QC)

## 1.1 Green Chemistry (Use of damaging chemicals where greener alternatives are available for intended use)



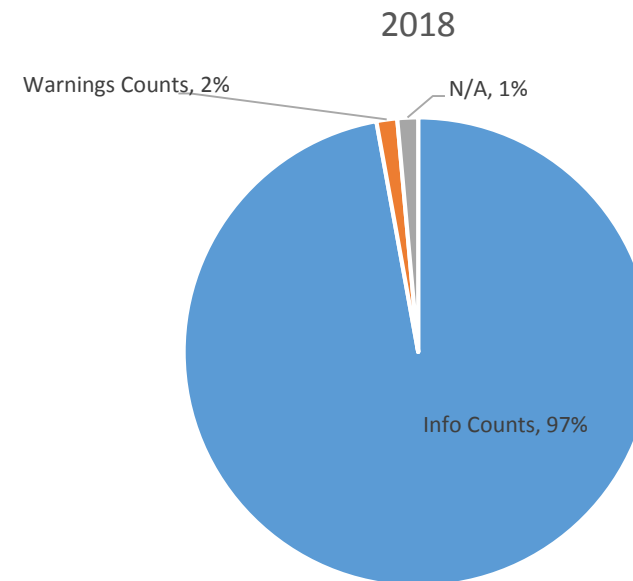
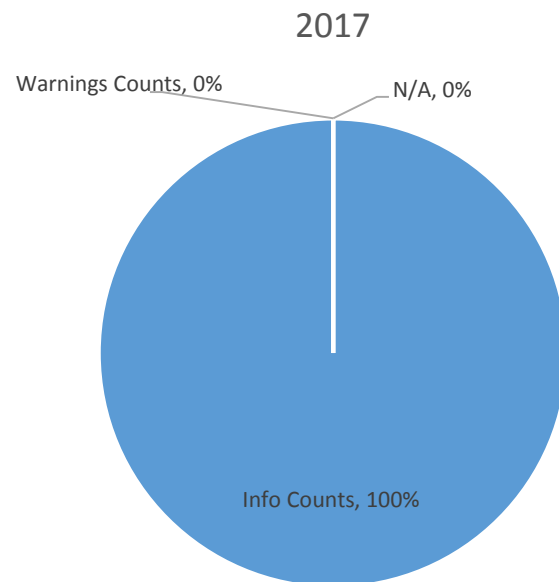
# RESULTS (CONT'D)

## 1.2 Resource efficiency



# RESULTS (CONT'D)

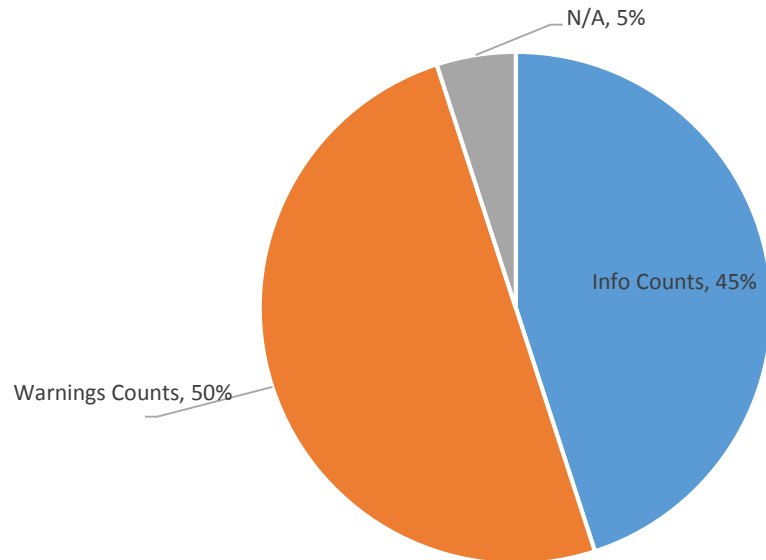
## 1.3 Environmental Handwashing Soap



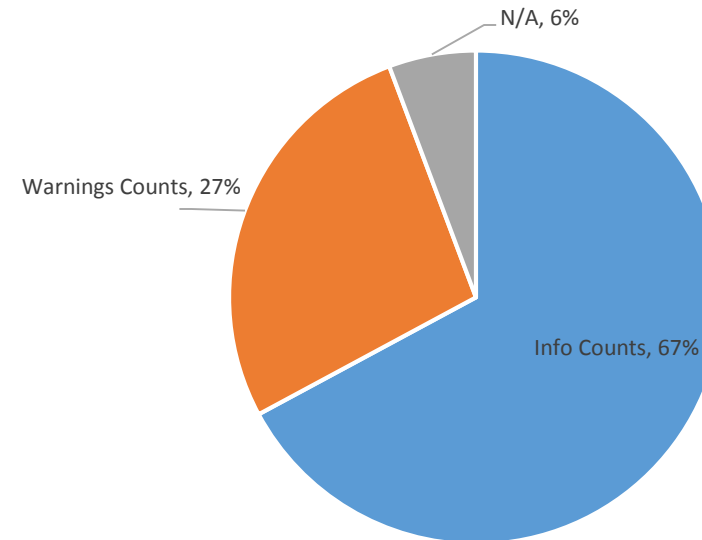
# RESULTS (CONT'D)

## 1.4 PI Sharing chemicals

2017



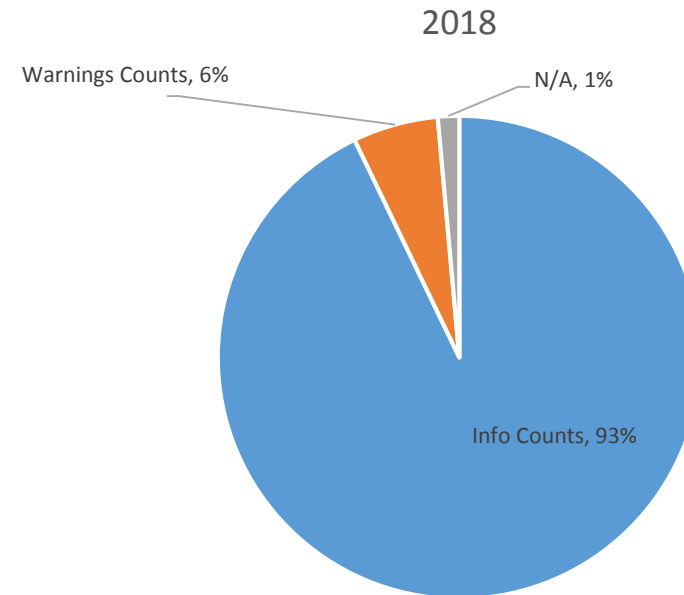
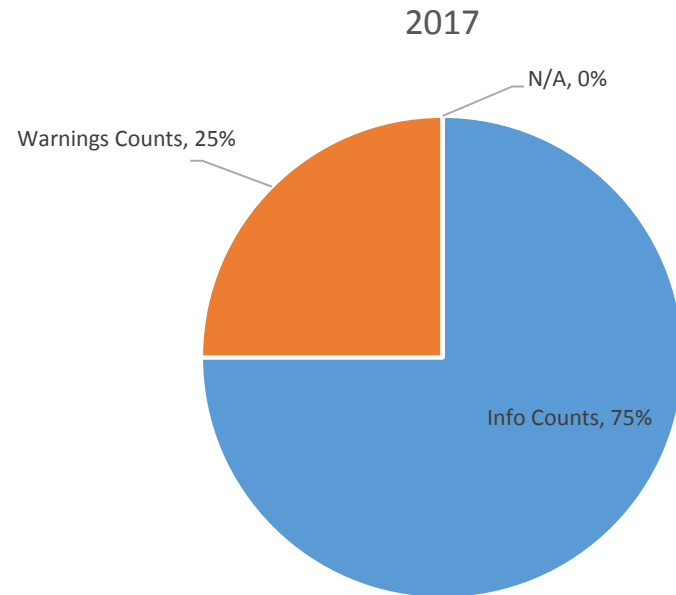
2018





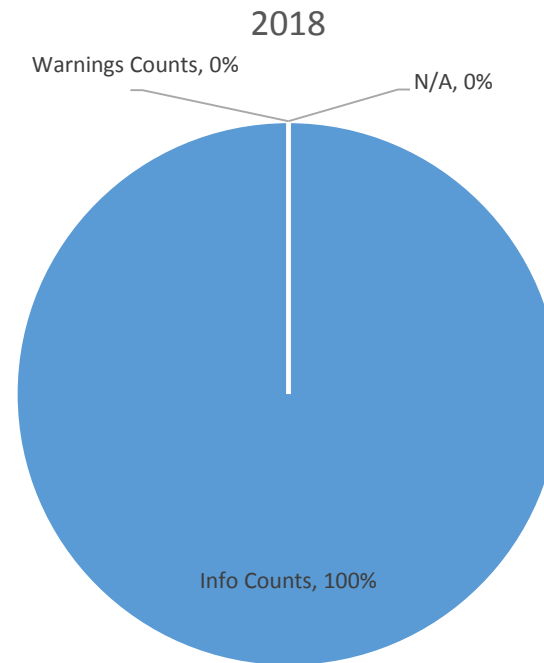
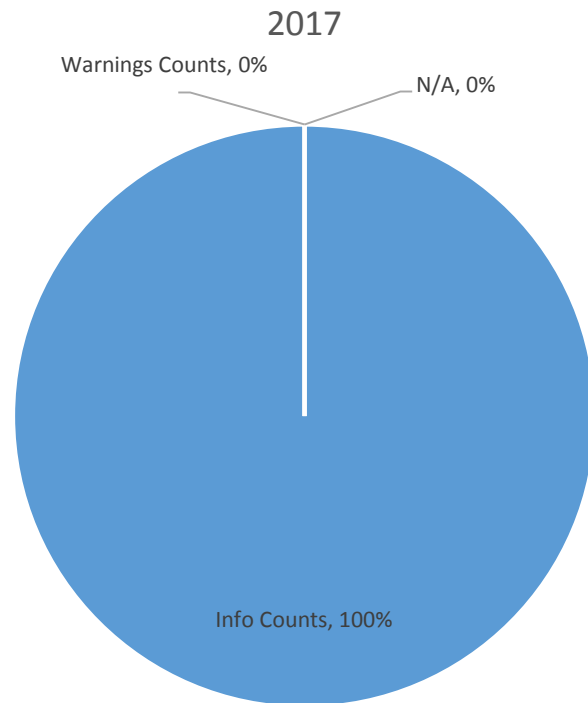
# RESULTS (CONT'D)

## 1.5 Efficient use of equipment



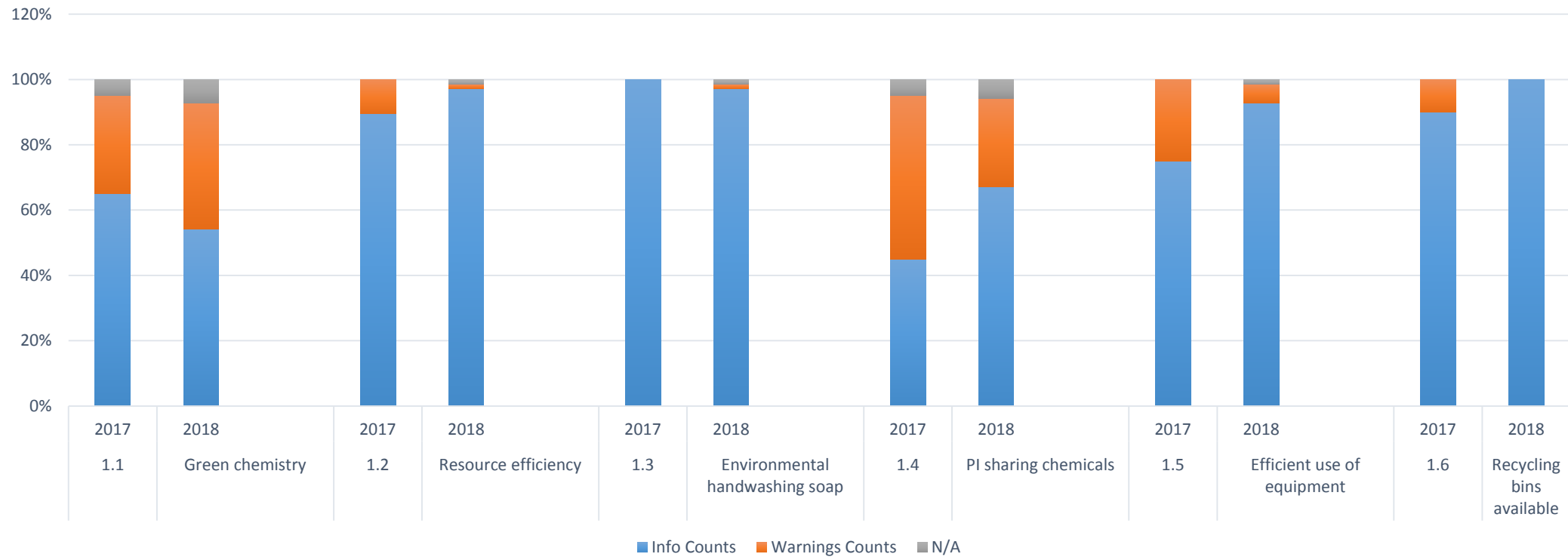
# RESULTS (CONT'D)

## 1.6 Recycling bins available



# RESULTS (CONT'D)

Comparison of 2017 vs. 2018 results



# CONCLUSIONS / NEXT STEPS

- Ongoing
  - benchmarking via EHS inspections
  - V2020 2017-2020
    - Waste strategy
    - Recognize best practices: Sustainable Labs Awards
    - Set targets? Ex. Environmental hand-washing soap = 0 warnings
- Some ideas moving forward:
  - Education/outreach campaigns
    - Topics
      - Green Chem: EtBr, halogenated solvents, scintillation fluid, protocol review
      - Chemical sharing
      - Availability of freezers for defrosting
    - PI engagement: ambassadors, focus group?
    - Reporting:
      - Departmental summaries? Other opportunities?
      - Certification?
    - Review of SL Guide/checklist
      - Inspector engagement/training
    - etc....

