15TH WORLD CONGRESS ON ENVIRONMENTAL HEALTH 2018

A SOUTH PACIFIC PERSPECTIVE

Manufacture of Illicit Drugs in NZ

Context & Response

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International faces of meth

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New Zealand faces of meth










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Overview

- Methamphetamine contamination in New Zealand
- Impact of meth contamination
- NZ societal response
- Reducing effects of meth
- What we can learn from NZ's meth experience

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Why all the fuss?

- Methamphetamine is an environmental contaminant that produces actual adverse health effects*

* Dr. Jackie Wright enRiskS and Flinders University

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Meth Lab Effects – Health

Short Term Exposure – Acute symptoms

- Headaches
- Watery or burning eyes
- Nausea
- Burning skin
- Sleep disorders
- Respiratory irritation

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Meth Lab Effects – Health

Longer Term Exposure – Chronic

- Cancer
- Damage to kidneys and liver
- Birth defects
- Reproductive problems
- Death
- Children at proportionately higher risk

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Meth Homes– Health

Longer Term Exposure – Chronic

- Persistent cough
- Shortness of breath/dizziness
- Decrease in cognitive function
- Behavioural issues
- Sleep disorders
- Skin issues

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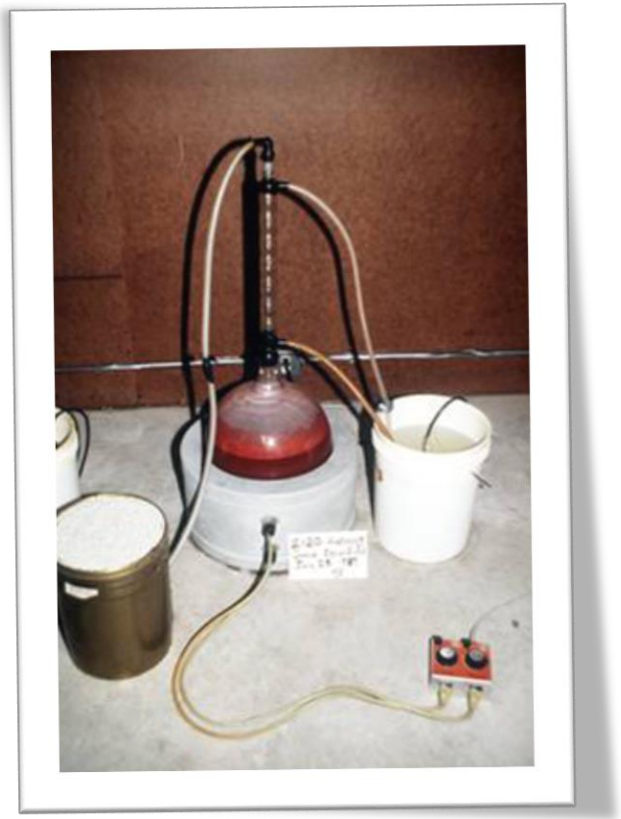
Manufacture

- Ingredients are readily available
- Process is relatively simply
- Lab set up in an hour or less
- Pseudoephedrine/Contact added to ingredients:
  - Drain cleaner
  - Battery acid
  - Brake fluid & anti-freeze
  - Lantern fuel
  - Solvents - toluene
  - Iodine
  - Lithium batteries
- **Immediate Contamination**



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Fixing up Meth Contamination

What happens

- Cooking produces gases/vapour
- Contaminants enter fabric of building
- Toxic and persistent

Remedy

- Wash
- Use chemical decontaminant
- Strip back
- Rip out
- Remove
- Replace

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Benchmarks for Action

- 0.5 µg - Acceptable levels in 2010 NZ Guidelines
  - No reference to use related contamination
- 1.5 and 3.8 µg Acceptable levels in 2017 Standard
  - Applies to use or manufacture

- 0.5 µg - Acceptable levels in 2011 Australian Guidelines
  - Specifically mentions use related contamination as unacceptable
- 0.5 µg Australian enHealth 2017 recommendations
  - Specifically mentions use related contamination as unacceptable

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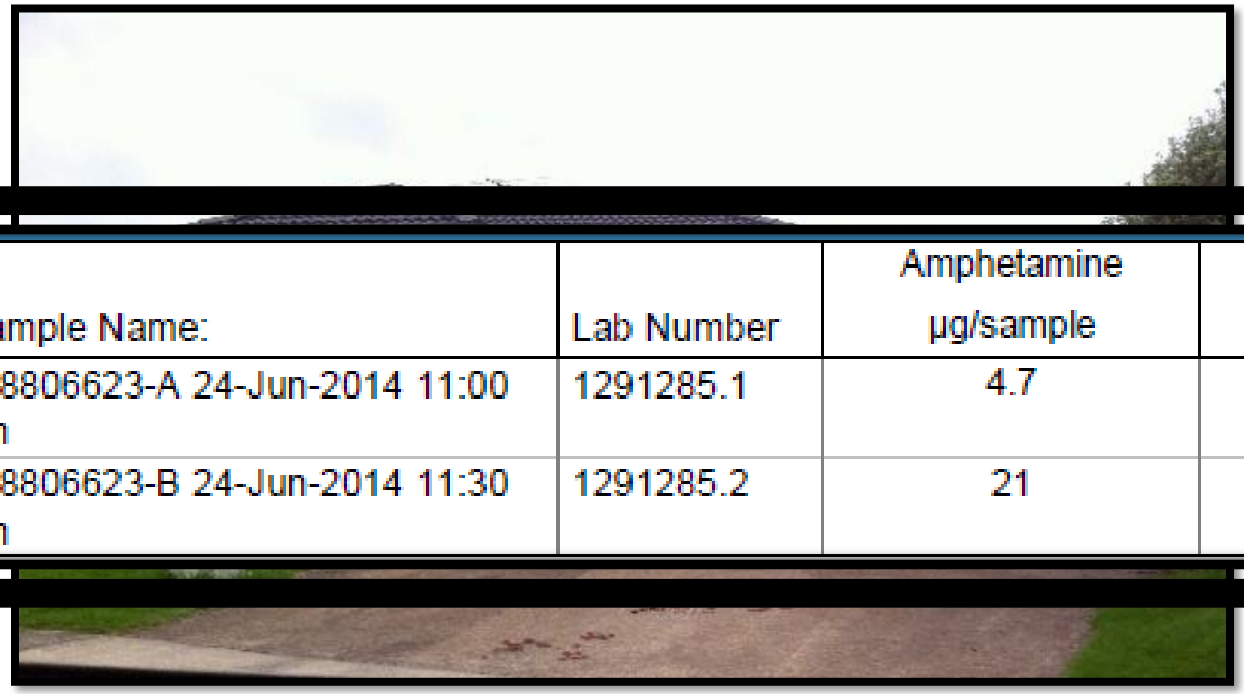
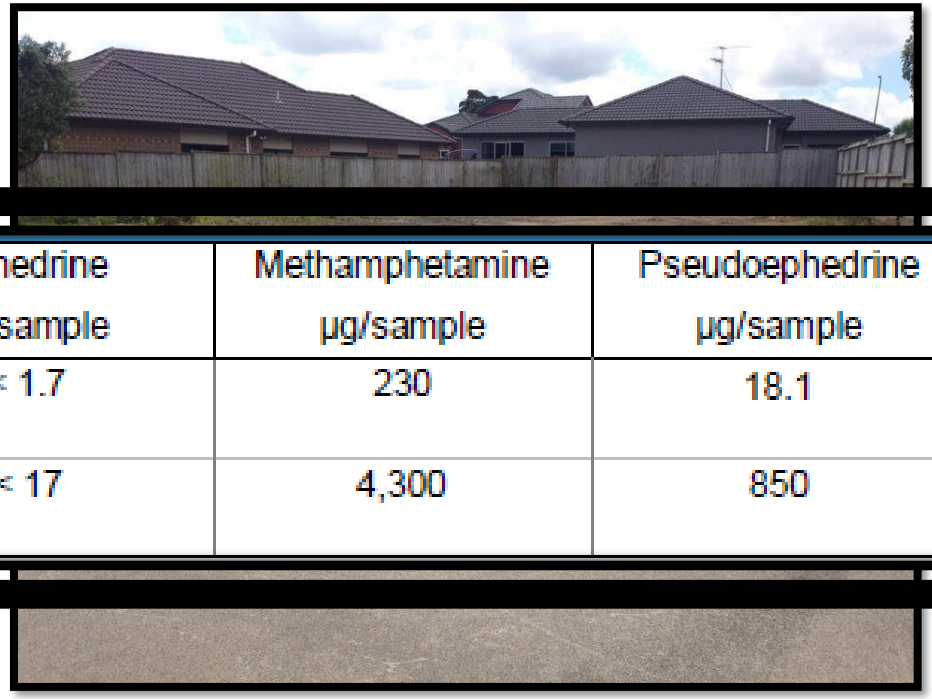
Meth Lab in a suburban home





Sample Name:	Lab Number	Amphetamine µg/sample	Ephedrine µg/sample	Methamphetamine µg/sample	Pseudoephedrine µg/sample
178806623-A 24-Jun-2014 11:00 am	1291285.1	4.7	< 1.7	230	18.1
178806623-B 24-Jun-2014 11:30 am	1291285.2	21	< 17	4,300	850

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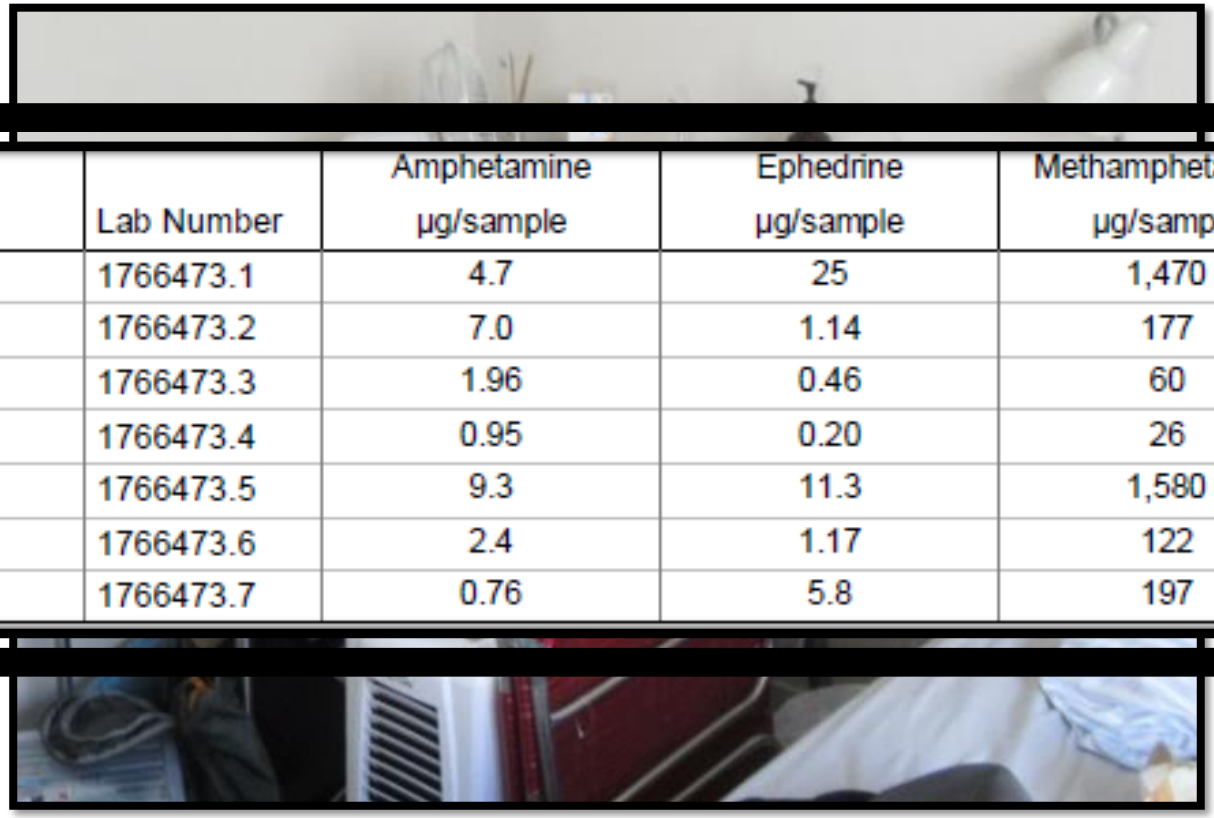
Meth Lab in an apartment



Sample Name:	Lab Number	Amphetamine µg/sample	Ephedrine µg/sample	Methamphetamine µg/sample	Pseudoephedrine µg/sample
180009615 A 28-Apr-2017	1766473.1	4.7	25	1,470	< 1.7
180009615 B 28-Apr-2017	1766473.2	7.0	1.14	177	< 0.17
180009615 C 28-Apr-2017	1766473.3	1.96	0.46	60	< 0.17
180009615 D 28-Apr-2017	1766473.4	0.95	0.20	26	< 0.02
180009615 E 28-Apr-2017	1766473.5	9.3	11.3	1,580	< 1.7
180009615 F 28-Apr-2017	1766473.6	2.4	1.17	122	< 0.17
180009615 G 28-Apr-2017	1766473.7	0.76	5.8	197	< 0.17

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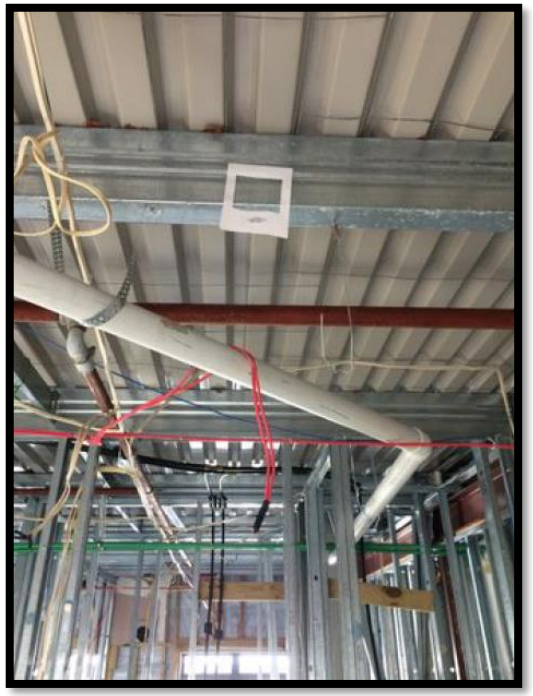
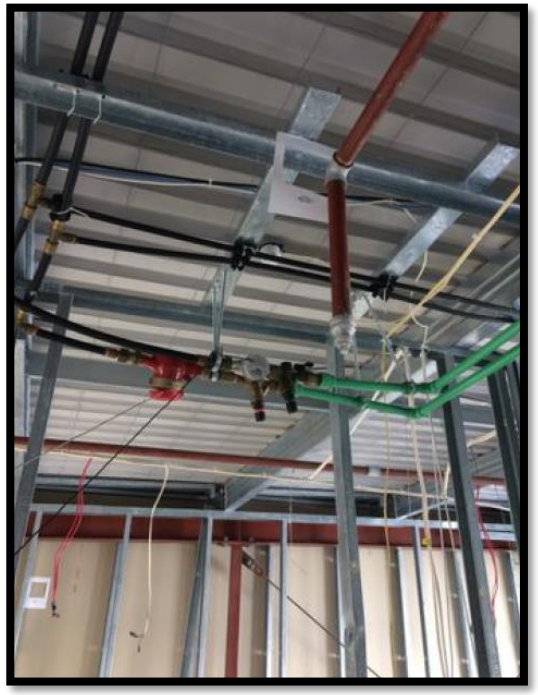
7 months later





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Meth Lab in a commercial premise

Amphetamine	µg/sample	1.44	1.13	2.3	410	1,480
Ephedrine	µg/sample	0.34	0.54	1.36	< 17	< 17
Methamphetamine	µg/sample	97	90	183	22,000	39,000
Pseudoephedrine	µg/sample	< 0.17	< 0.17	0.64	< 17	< 17

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How is meth used

Point bag = 0.1 gram

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The Scale of New Zealand's Meth Contamination

Official Police busts ±2000

Estimates of P lab totals 20,000 to 40,000

Labs move around ??,000 to ???,000

Use contaminates property ???,000 to ???,000

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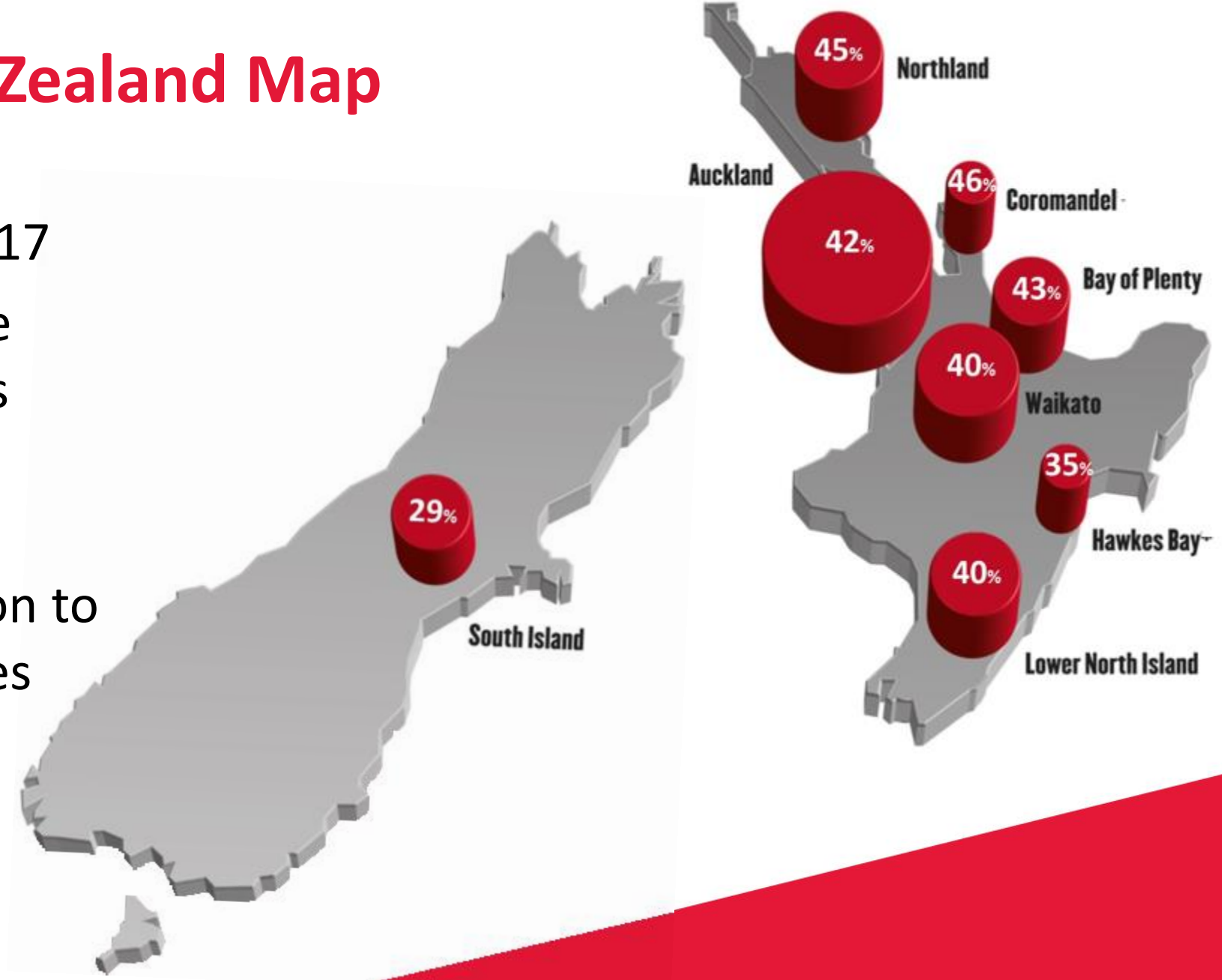
MethSolutions New Zealand Map

- Figures as at 30 June 2017
- Percentages indicate the proportion of properties identified with Meth Contamination
- Circle size is in proportion to the number of properties tested in each area



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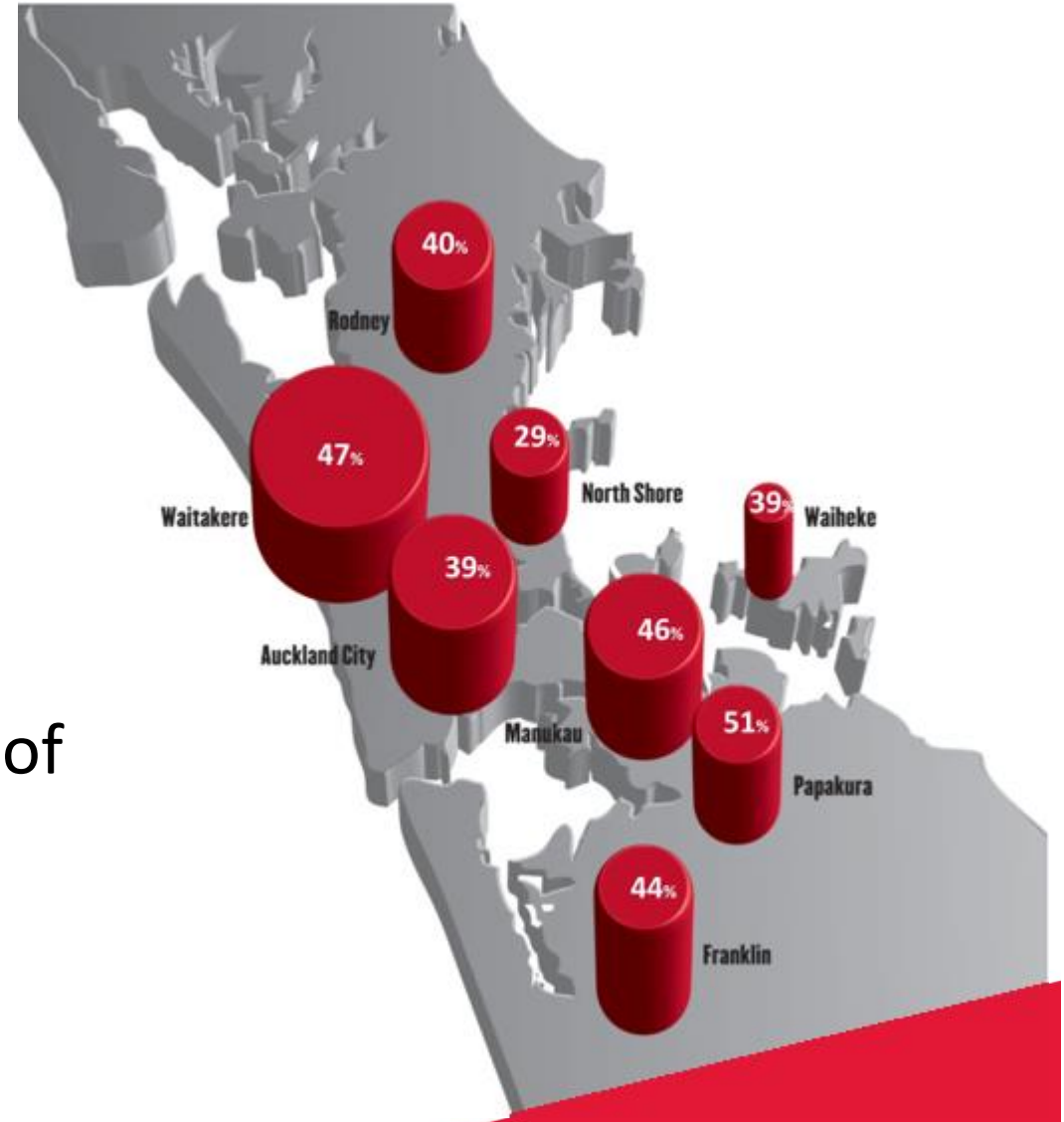
MethSolutions Auckland Map

- Figures as at 30 September 2017
- Percentages indicate the proportion of properties identified with Meth Contamination
- Circle size is in proportion to the number of properties tested in each area



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Meth Consequences – Health and Wellbeing

- Health risk not being measured
- Real world research identifies risks
- Strong emotional response/impact

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Meth Consequences – $$$$$$

MethSolutions Screening Assessments	**$159+**
Contaminated Site Inspection	$2,000 to $3,000
Decontamination	$10,000 to $50,000+
Post Decontamination retesting	$2,000 to $3,000+
Fit out	$5,000 to $50,000+
Loss of Rent	$?,000
Loss of Value of Property	$??,000
Reaction of Banks	$??,000
Future Liability and Health	$???,000

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HNZ 2015-16

$20M

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HNZ 2016-17

$52M

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A New Standard

- Pan Societal Committee
- Acceptable post-decon levels increased
  - 1.5 µg/100sqcm in high use areas
  - 3.8 µg/100sqcm in low use areas
- Standards for testing
- Standards for testers
- Standards for decontamination

NZS 8510

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Invest in ‘real world’ health focused science

- Acceptable levels should be as high as possible WITHOUT compromising Health, Safety and Wellbeing

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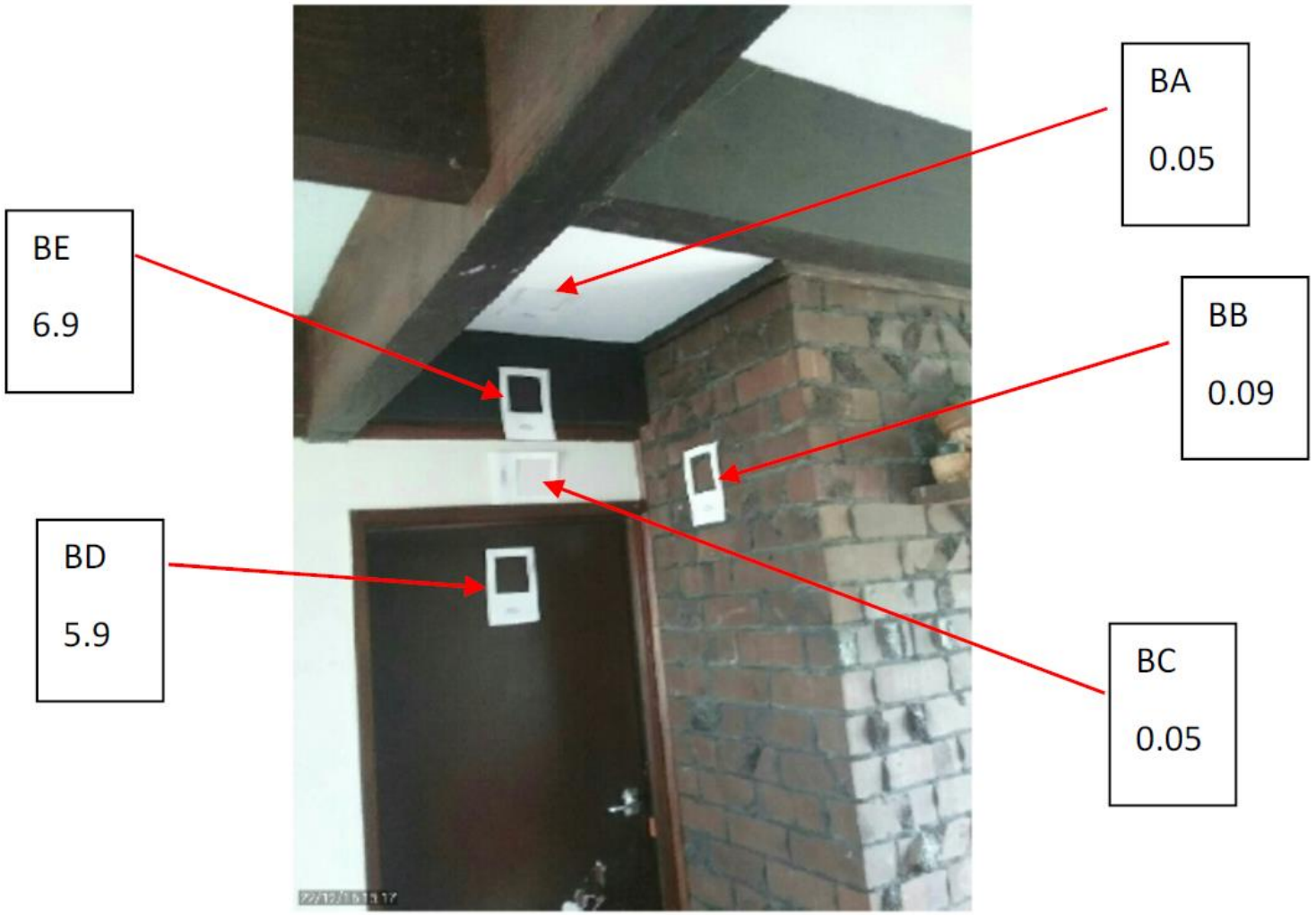
Increase Sampling Consistency



- If BB, BE or BD are selected an additional sample SHALL be taken Section 3.3.3.1 (f) & (g)
- If BA or BC are selected no additional sample needs to be taken
- **Health Safety and Wellbeing implications?**
- **Economic implications?**
- **Service provider liability?**

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Proactive Property MethManagement strategies

Test

for use

Monitor

for meth manufacture 24/7 in real time

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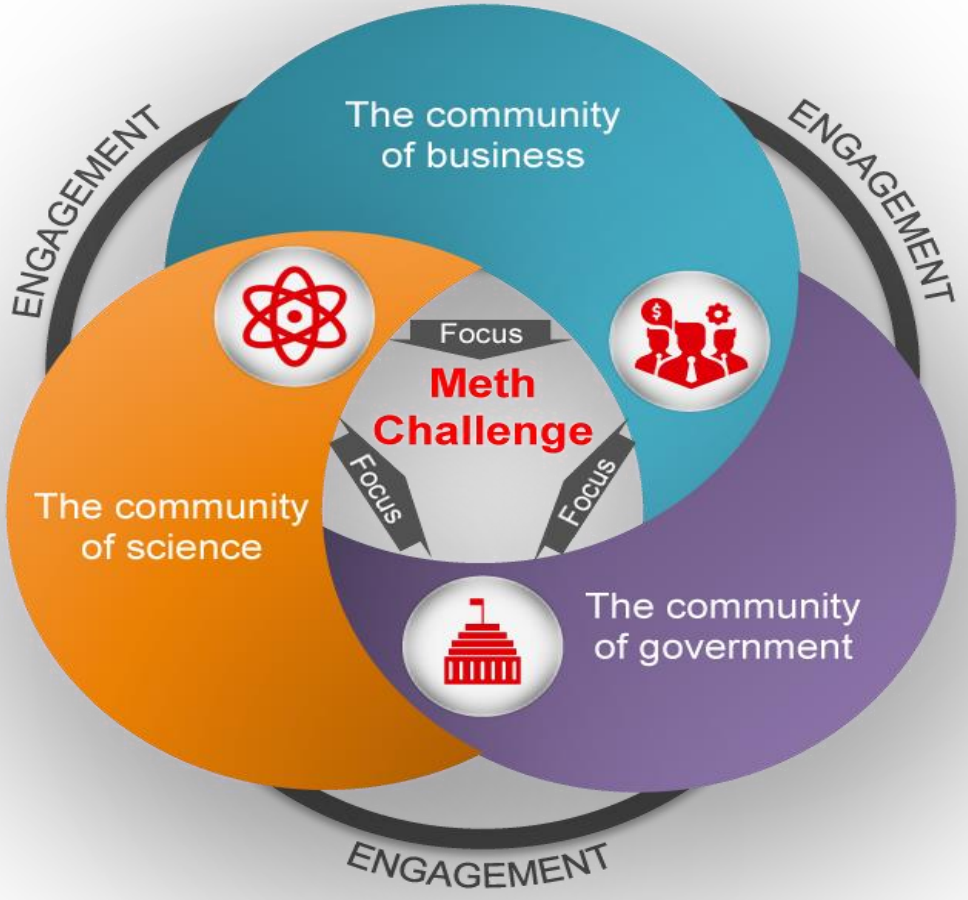
Putting Focus on Environmental Risks



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Frameworks for Decisions Making

- Framework for decision making
- Low cost/high efficacy screening tests
- Bright line test for decision making
- Disclosure obligations – make it visible
- Clear actions for remedy
- Clear responsibilities/actions for authorities

+20,000

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Summary

- The risk is real
- It’s impacts are profound
- Our response must be measured
- Our response must be coordinated
- Decision making frameworks are essential

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