**The case of disappearing teaspoons: longitudinal cohort study of the displacement of teaspoons in an Australian research institute**

Lim et al, BMJ, 2005.

**Background:** Dr. Lim observed that teaspoons don’t seem to be available when they are needed.

**Research Questions**:Are teaspoons disappearing from our breakrooms (tearooms)? Do tearoom users take the spoons?

**Setting:** shared lunch rooms at academic research institution (general lunchroom and more private program-specific lunchroom)

**Study Type:** prospective longitudinal cohort of teaspoons and survey of tearoom users

**Methods:**

* 54 standard and 16 high-quality teaspoons were numbered and “enrolled” by being placed in drawers of different tearooms in a research centers
* Both standard and high-quality teaspoons were distributed equally across program-linked and communal tearooms.
* Teaspoons that were already in the drawers not included.
* Monthly teaspoon counts for 5 months, from 2/5/2004-6/18/2004
* Brief survey sent to staff without knowledge of experiment
* Statistics: Kaplan Meier survival curves and summary statistics comparing respondents.
* Co-primary outcomes:
	+ Proportion of spoons at the end of the study.
	+ Proportion of tearoom users who reported stealing teaspoons.

**Impact**:

* Identified rates of spoon disappearance would require 252.4 spoons per year to be purchased to maintain a workable spoon population
* Extrapolated to the entire population of Melbourne, an estimated 18 million teaspoons per year go missing. Laid end-to end, these missing spoons could cover over 2700 km (the length of the coastline of Mozambique) and weigh as much as four adult blue whales.
* No institute members ever admitted to removal of spoons, leaving no explanation for their disappearance. Authors discuss potential reasons for spoon disappearance:
	+ Tragedy of the commons: In this theoretical perspective, individual cattle herders over-graze common pastureland at the expense of their community, depleting shared grazing land and making it useless. This phenomenon may equally apply to teaspoons.
	+ Spoon planet: speculative theory where unattended spoons slip off to live among other spoons on an undiscovered spoon utopia planet.
	+ Counterphenomenological resistentialism: The belief that inanimate objects have antipathy towards people and resist our control, in this case, showing ability to migrate and disappear beyond human control.

**Results**

* 56/ 70 (80%) of spoons disappeared
* Teaspoon half-life by setting (figure 1)
	+ Communal: 42 days
	+ Program-specific: 77 days
	+ P < 0.05
* Teaspoon loss by type
	+ High quality: 12, expected 12.4
	+ Standard: 44, expected 43.6
	+ P = 0.88
* Total teaspoon days observed: 5668
* Rate of loss: 0.99 per 100 teaspoon days
	+ 95% confidence interval 0.76-1.28

Figure 2

Figure 1