# King's Day, to your health?!

### **Project Overview**

The purpose was to study the relation between health and the way national holidays are celebrated. Because there is a long period without national holidays between Liberation Day, May 5, and Sinterklaas, December 5, King's Day was selected. This is a Dutch national holiday at the end of April that is widely celebrated. Most Dutch people will remember something of what they were doing at the time, even if they'd only seen a newsitem on tv.

This study will focus on the occurrence of hangover-symptoms in relation to the different ways to celebrate in King's Day.

#### Methods

Symptoms of hangover were grouped into categories (fatigue, nausea, headache). Health-related behaviour was measured by three questions about eating, drinking and sleeping habits. Three types of celebrations were selected: dressing in orange ('oranje gekte'), King's Night (partying on the night before) and the Free Market ('vrijmarkt').

Personal information was limited to participants' physical characteristics (age, gender, height, weight) that could have an effect on health.

If measurement units (cm,kg) were sensible, free numeric text fields were used, otherwise categorical checkboxes with one answer-option.

Due to the small number of participants, analysis was limited to barcharts and cross-tabulations.

### **Survey Population**

On November 30 about 100 people received a request to participate in the survey (e-mails + views on Coursera-forum). From 30 November to 5 December 2014, 21 surveys were submitted, of which one was a duplicate record. Twenty records were used for further analysis. Twelve participants were male and eight female. Age-groups ranged from 16-20 to 51-55. Only one participant was younger than 20 and none was older than 60. Based on gender and age the group of participants seems to be representative of my network, but not of the Dutch population.

## Summary of Findings

Of the 20 participants 16 were in the Netherlands during King's Day. Nine people joined in one or more of the celebrations, only two celebrated King's Night.

Five of the people who joined the celebrations suffered from one or more of the hangover symptom but only one qualified as a hangover (scored 'moderately' on at least two symptoms), the other four had only minor symptoms. The four other people who also joined in the celebrations did not suffer from any symptom at all. Celebrating King's Day did not correlate with having hangover symptoms.

Analysis of health related behaviour revealed that of the participants only two exhibited excessive behaviour (ie skipped several meals, went a night without sleep and/or had more than 6 drinks containing alcohol). One of these suffered from a hangover but one record is usually considered an outlier and not sufficient data to draw reliable conclusions. Health-related behaviour did not correlate with hangover symptoms.

By and large the participants in this study are moderate party-goers who do not suffer from hangovers. This result might be related to the selection of the participants from my network that consists mostly of middle-aged working people who have left the serious partying behind them. (Mind you, I'm not saying we've become a boring lot. Absolutely not, I wouldn't dare.)

#### **Lessons Learned**

To achieve clearer and more detailed results about possible effects of celebrating King's Day on health, more participants are needed especially from the partying part of our population. This would allow for more elaborate multivariate analysis. A more comprehensive approach is needed to reach more participants outside of my own network.

To achieve more reliable results the survey should be held immediately after King's Day, with a pre-survey to control for existing illnesses/health status. Instead of a using a web-survey it might be better if future participants would receive health and health related questions before, during and after the celebrations on a portable device (smartphone) and in exchange for a personal party-health profile.

Although in general the Dutch understand English well enough for answering questions like these, I would use a Dutch version next time to increase response rate and minimize misunderstandings.