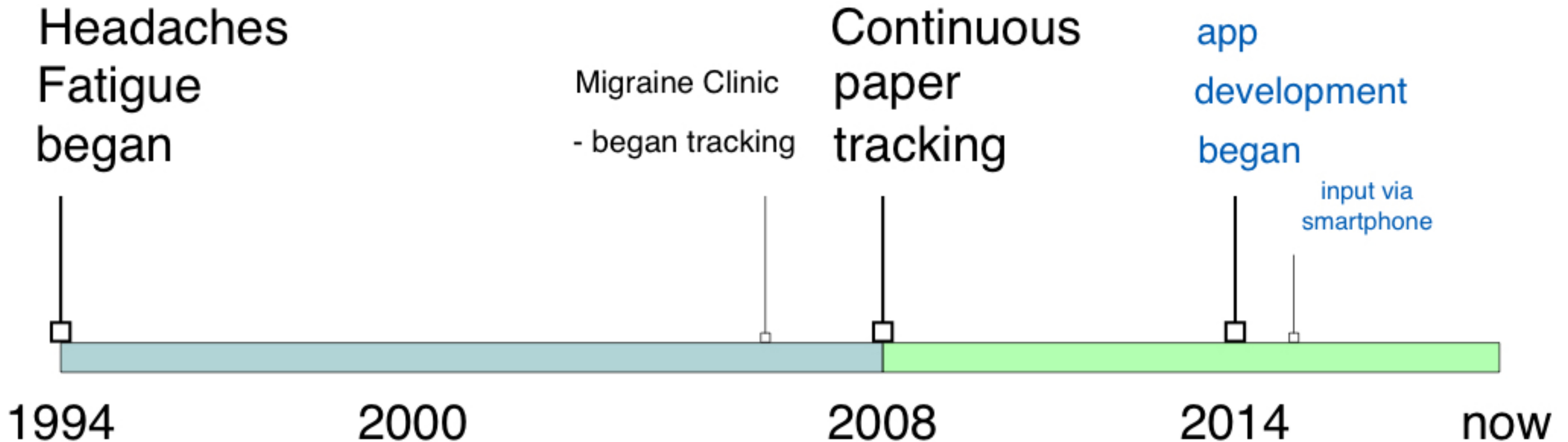


# A Decade of tracking headaches

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Stephen Maher

# *stumbling in to tracking ..*



2008 - 2014

July 2008 date: 6 17 :step 800Z 4yr

HEADACHE

start: 16 end: 22 mild / mod. / sev  
type: poss migraine aura / nausea

INTERVENTION

time: 20 type: fova  
dose:      effect: none/sml/mod/full  
the delay

RELATED EVENTS 5<sup>th</sup> July

time: 19 X type: bad head  
none/small/mod/full

time: 23-4am type: poor sleep  
none/small/mod/full  
shrs

2015 - 2018

Carrier 10:16 AM

Cancel Add Headache Save

Score

Very Weak

Weak

Medium

Strong

Severe

Started 10 Sep 2018 10:16 >

Ended end time >

Add Action >

Notes usually blank.

Home Schedule History Analysis More

Carrier 10:17 AM

< Cancel Add Intervention Save

Type Sumatriptan >

Strength 50mg >

Time 10 Sep 2018 10:17 >

Success none little some good full

Notes

Home Schedule History Analysis More



Summary : *Jan 2008 - Aug 2018*

	Severity	51 %	
	Observations	639	
	Av. per month	5	
	Weekend Percent	54 %	
	Av. Duration	21 hrs	
	Interventions	486	
	Av. per month	4	
	Success Percent	68 %	

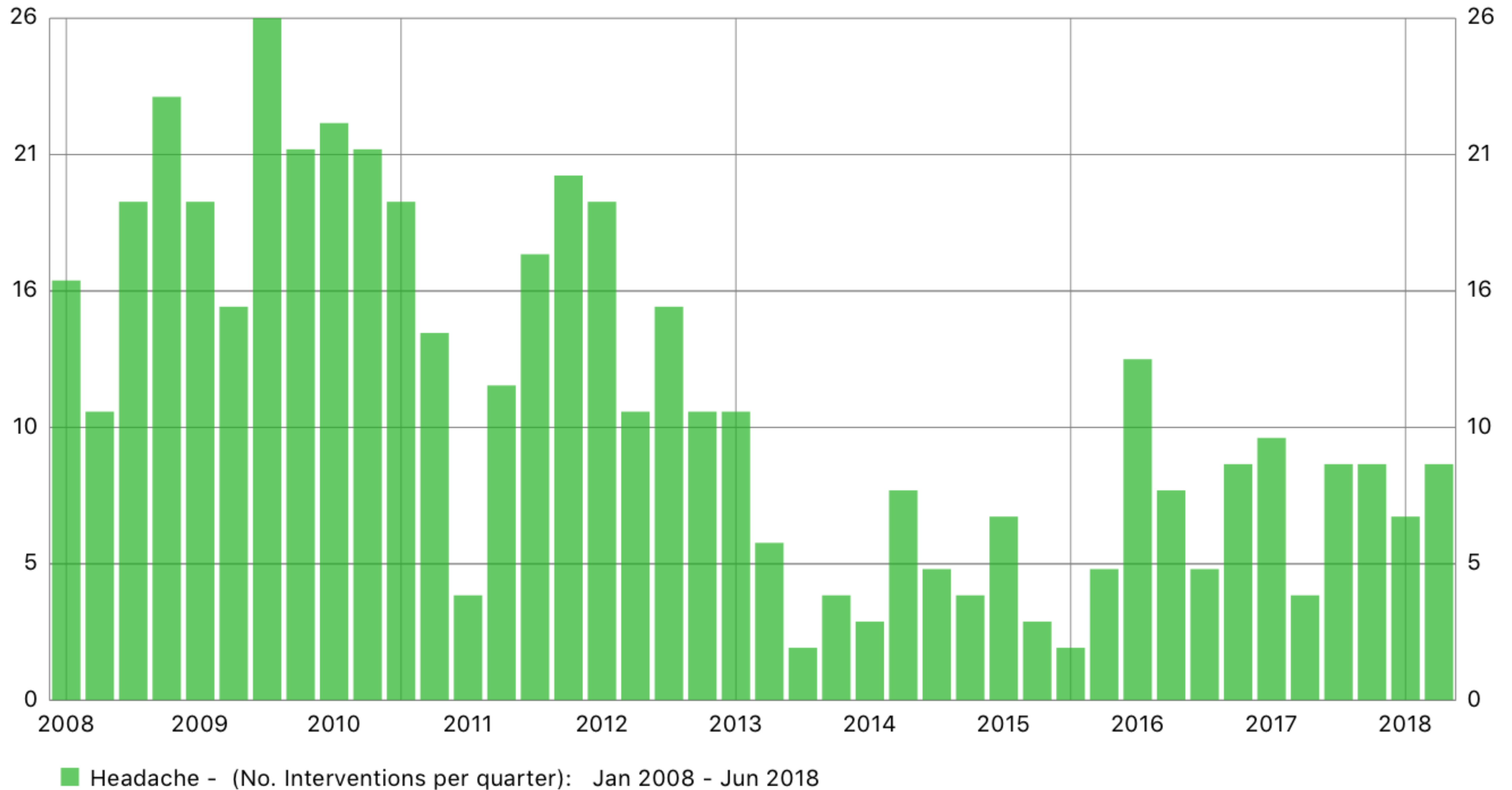
# Possible Triggers (74 recorded from 2008 to 2015)

link code	linked observation	start	end
130	work stress	10 Sep 08 09:00	
320	bad night	23 Oct 08 01:00	
320	bad night	09 Nov 08 01:00	
161	flu like illness	25 Dec 08 20:00	
152	exercise	23 Jan 09 18:00	
161	flu like illness	04 Feb 09 08:00	
320	bad night	04 Feb 09 23:00	05 Feb 09 07:00
320	bad night	20 Mar 09 23:00	
126	holiday	21 May 09 08:00	25 May 09 08:00
315	humid weather	13 Jun 09 08:00	15 Jun 09 08:00

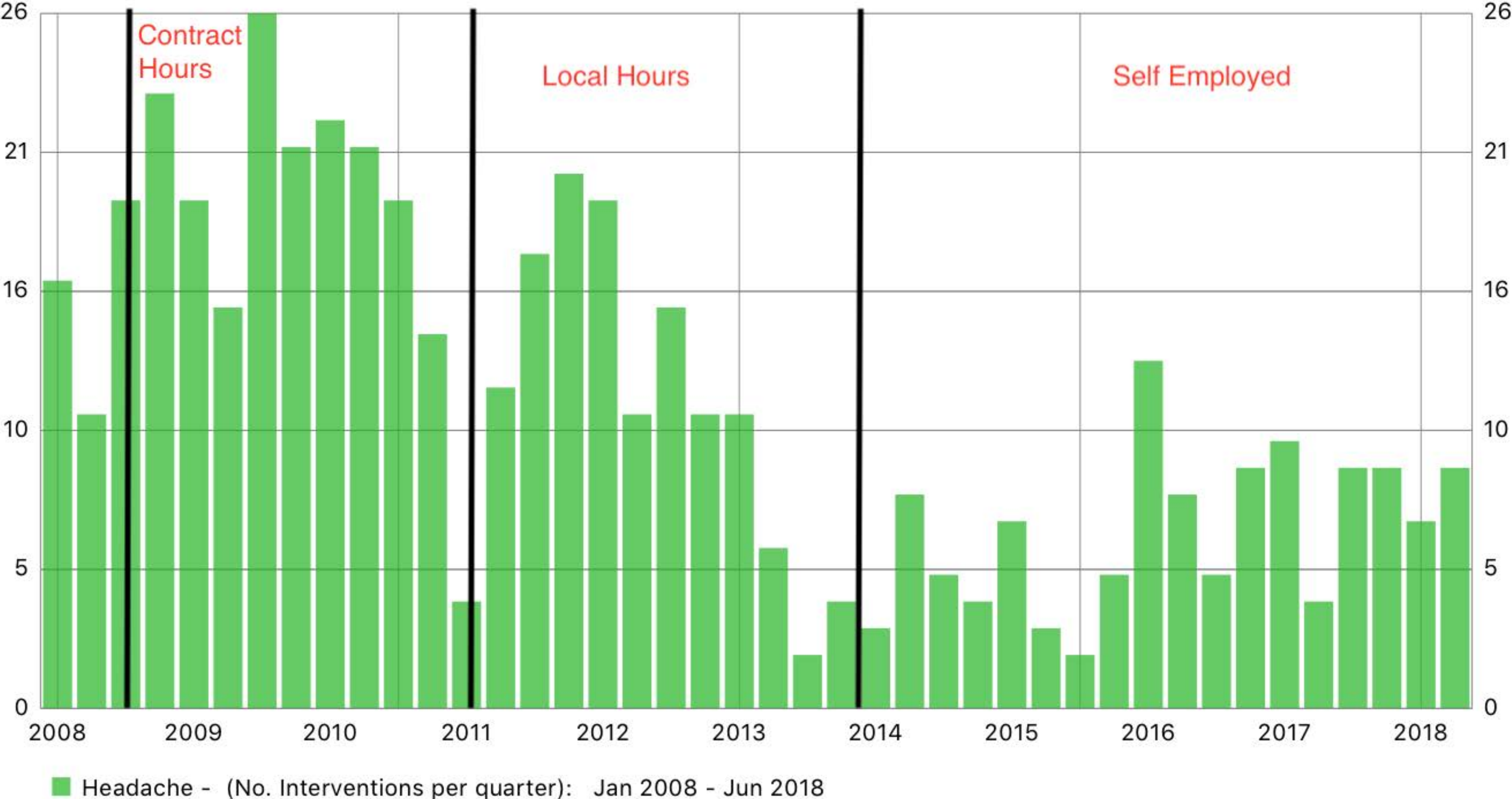
*Time imbued with meaning*

period	measure	variables	
day	hour	heat, light	work, meals, sleep
week	weekday		work, leisure
year	month	weather	holidays
lifetime	year / decade		family, friends, health, job ..

# Interventions (single triptans) : 2008 - 2018



# Interventions by Circumstance



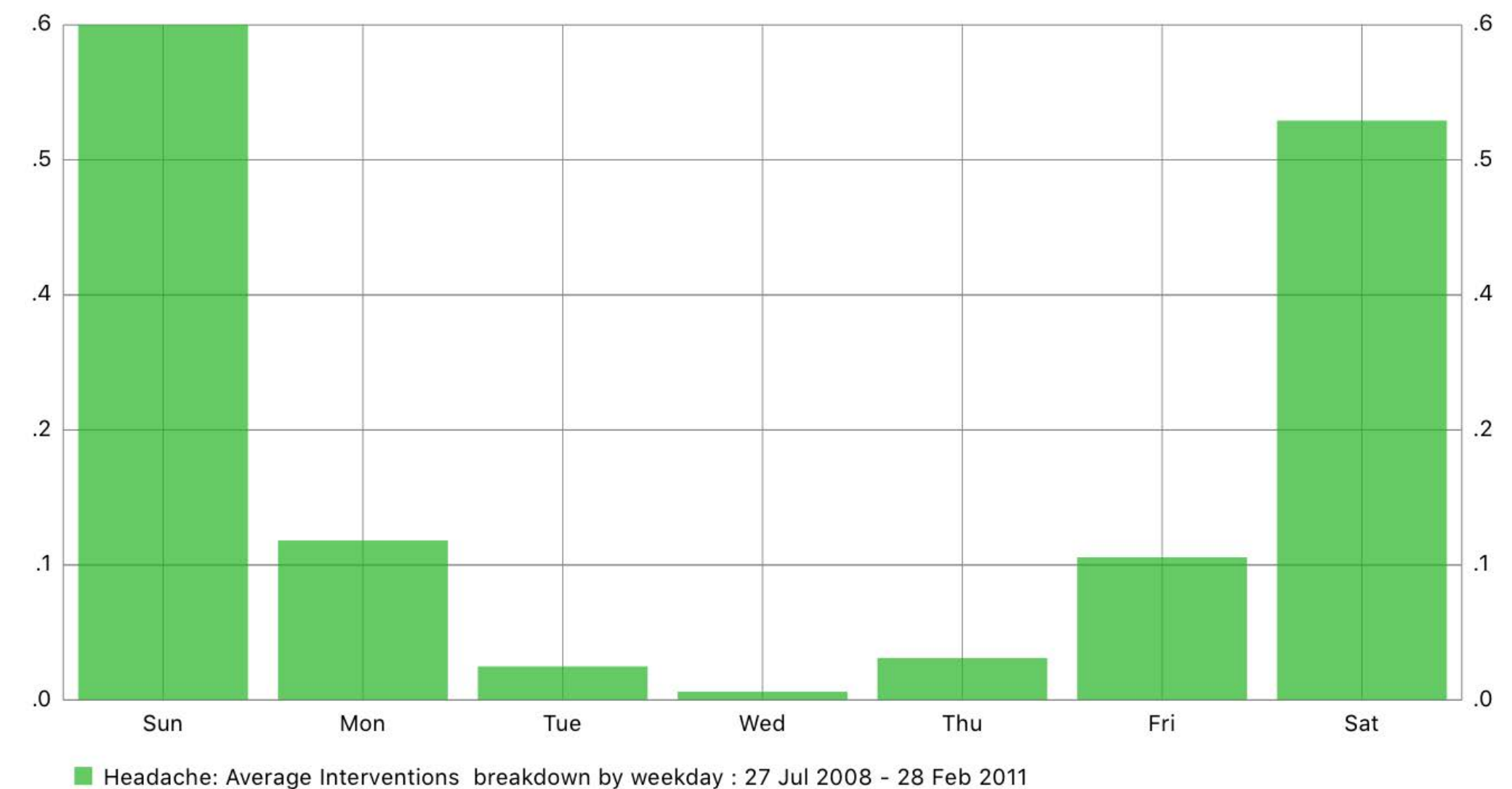


# Interventions by **Weekday**

**Contract Hours** (19 months)

sample size : **80** (weeks)

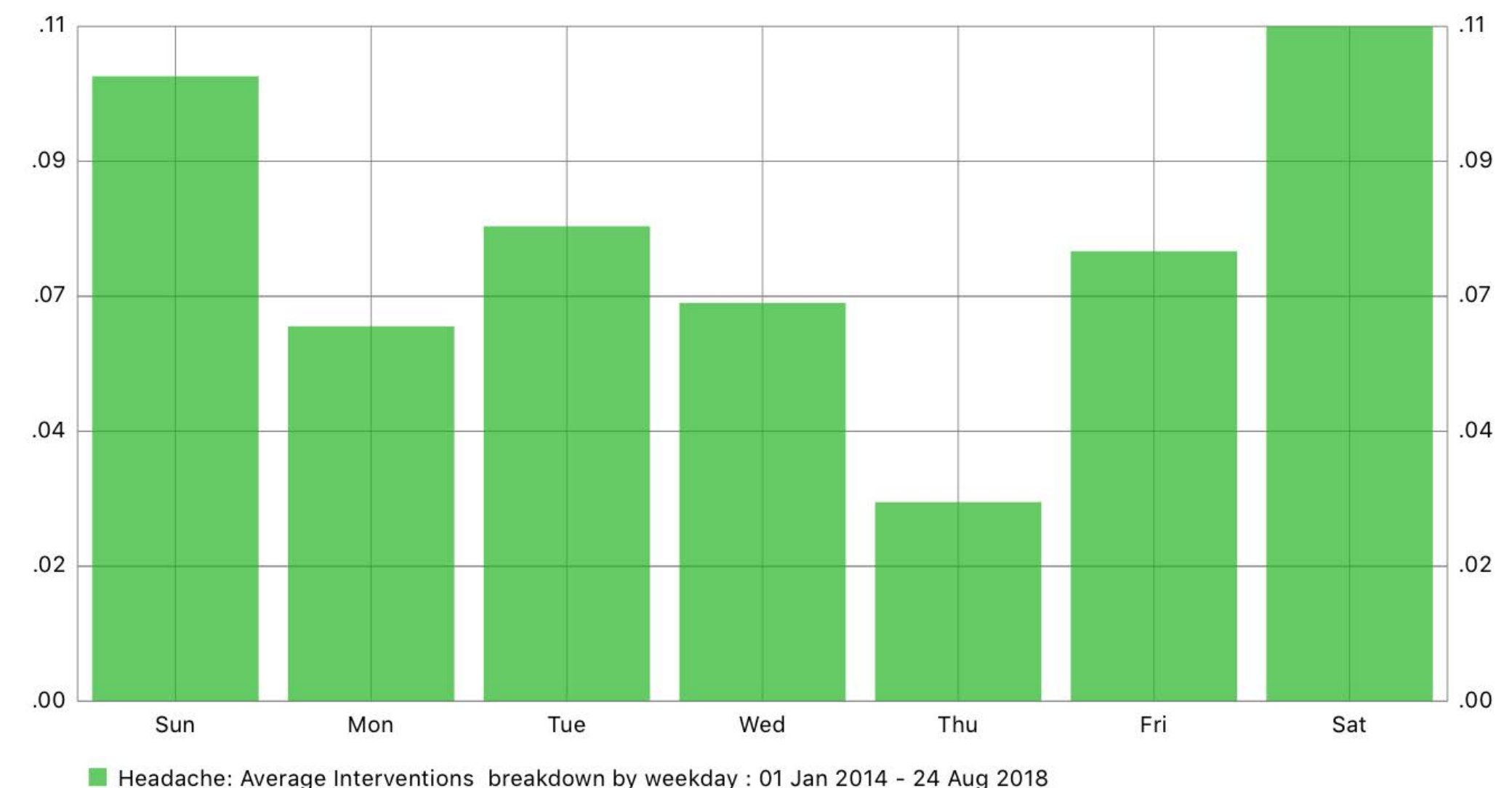
doses per week : 1.5



**Self Employed** (56 months)

sample size : **240** (weeks)

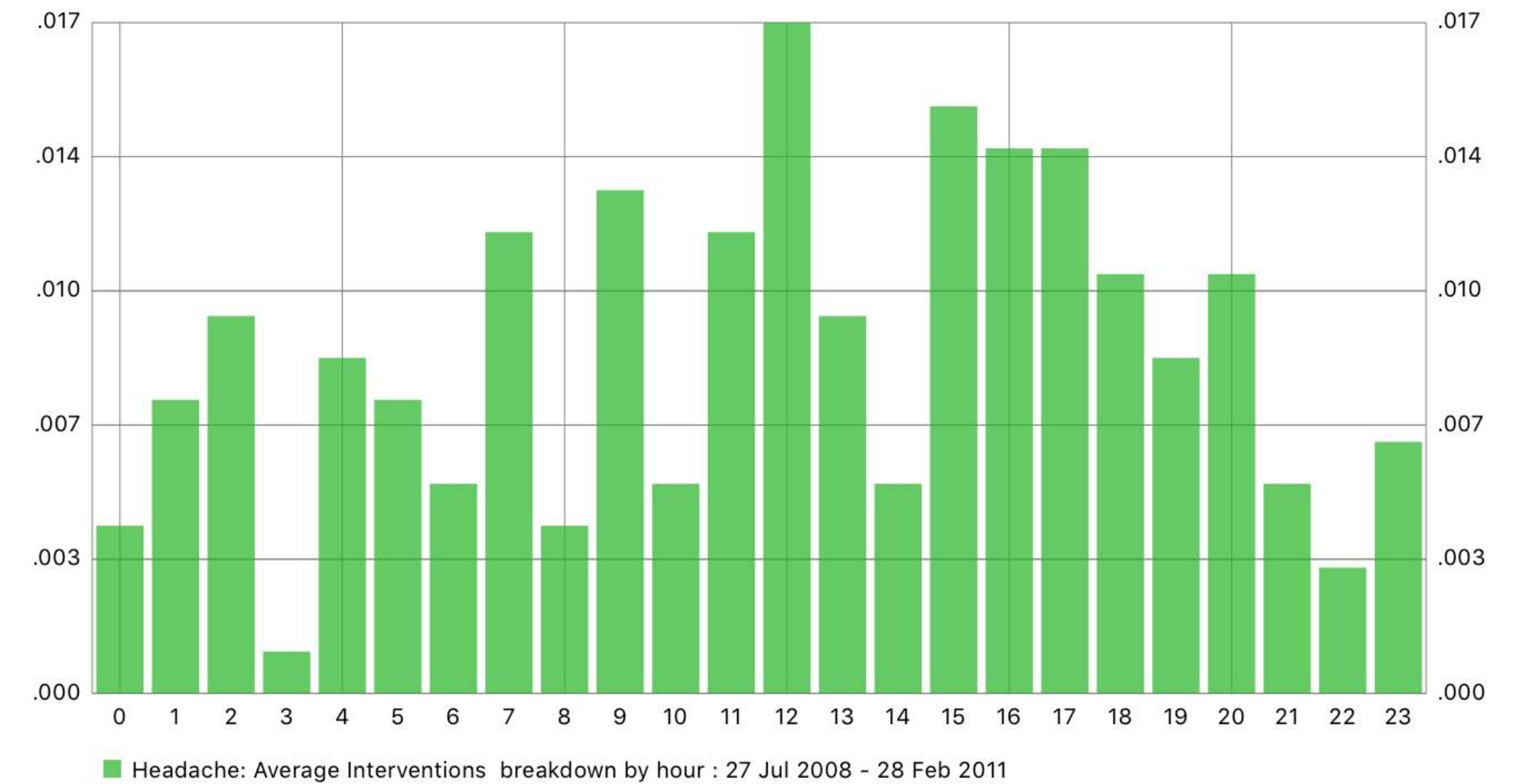
doses per week : 0.5



# Interventions by ***Time of Day***

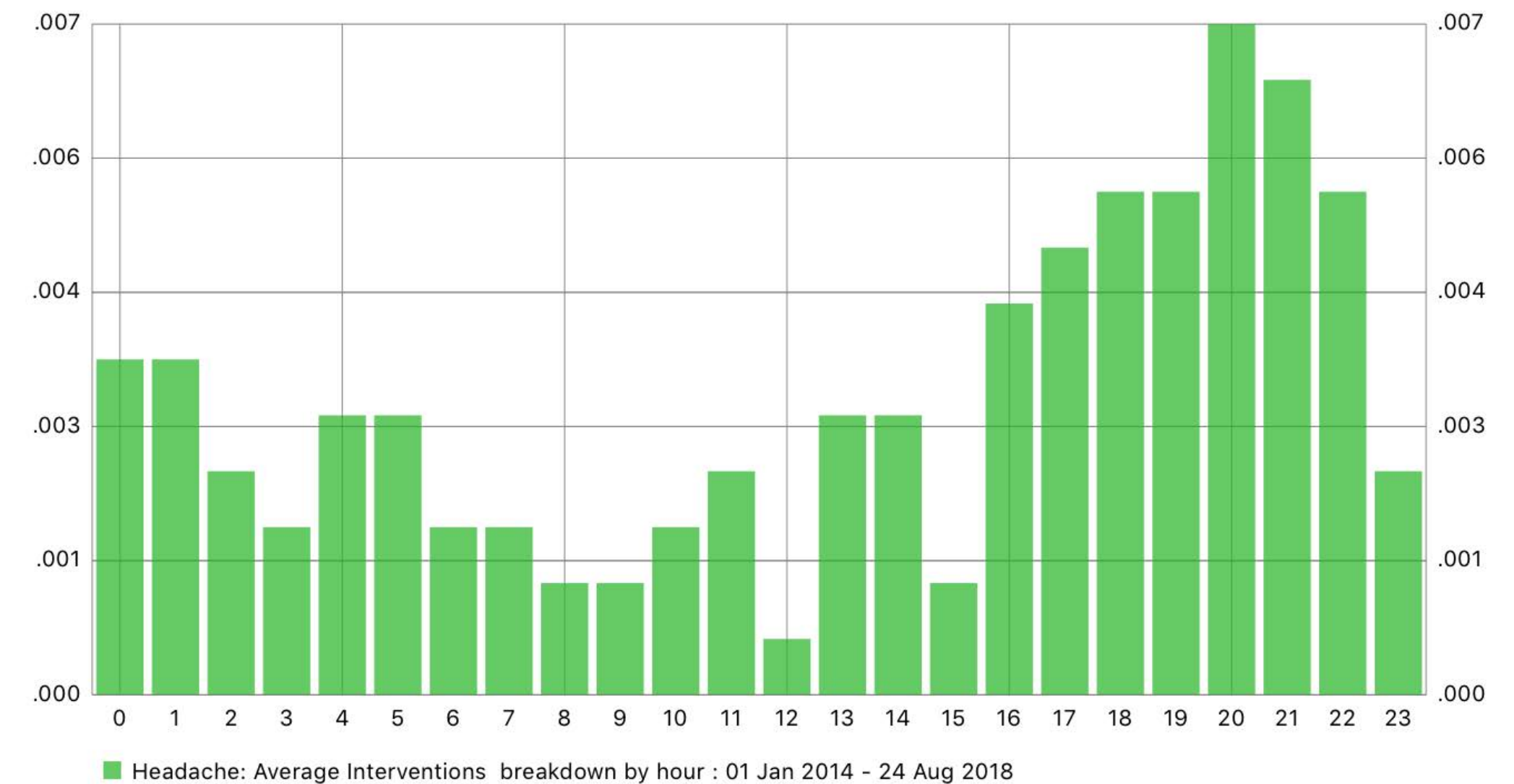
## Contract Hours (19 months)

sample size : **600** (days)  
doses per day : 0.2



## Self Employed (56 months)

sample size : **1700** (days)  
doses per day : 0.07



Correlation of **Medication Delay**

Severity	Sample size	to <b>Headache Duration</b>		to <b>Success</b>	
		Pearson correlation coefficient ( r )	Significance ( p )	Pearson correlation coefficient ( r )	Significance ( p )
10 - 60%	75	0.65	< 0.001	-0.31	< 0.01
65 - 100%	284	0.23	< 0.001	(-0.03)	-

**Less severe : Shorter delay** to medicate —> **Shorter Duration** & Greater Success

**More severe : Shorter delay** to medicate —> Shorter Duration

## What I learned ..

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- Until I can find a physical cause for my headaches I seem healthier when the edge is taken off the stresses accompanying modern life.
- Medicate as soon as the meds clearly become inevitable.
- The timestamp can turn a bi-variate series in to a huge multivariate one, however .. we're a little too good at pattern matching so need to watch out for confirmation bias.
- Tracking brings ideas into the open. Its harder to consider illness a personal failing while addressing it scientifically.



Further details : <https://lakes.ubtrack.co.uk/support>

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