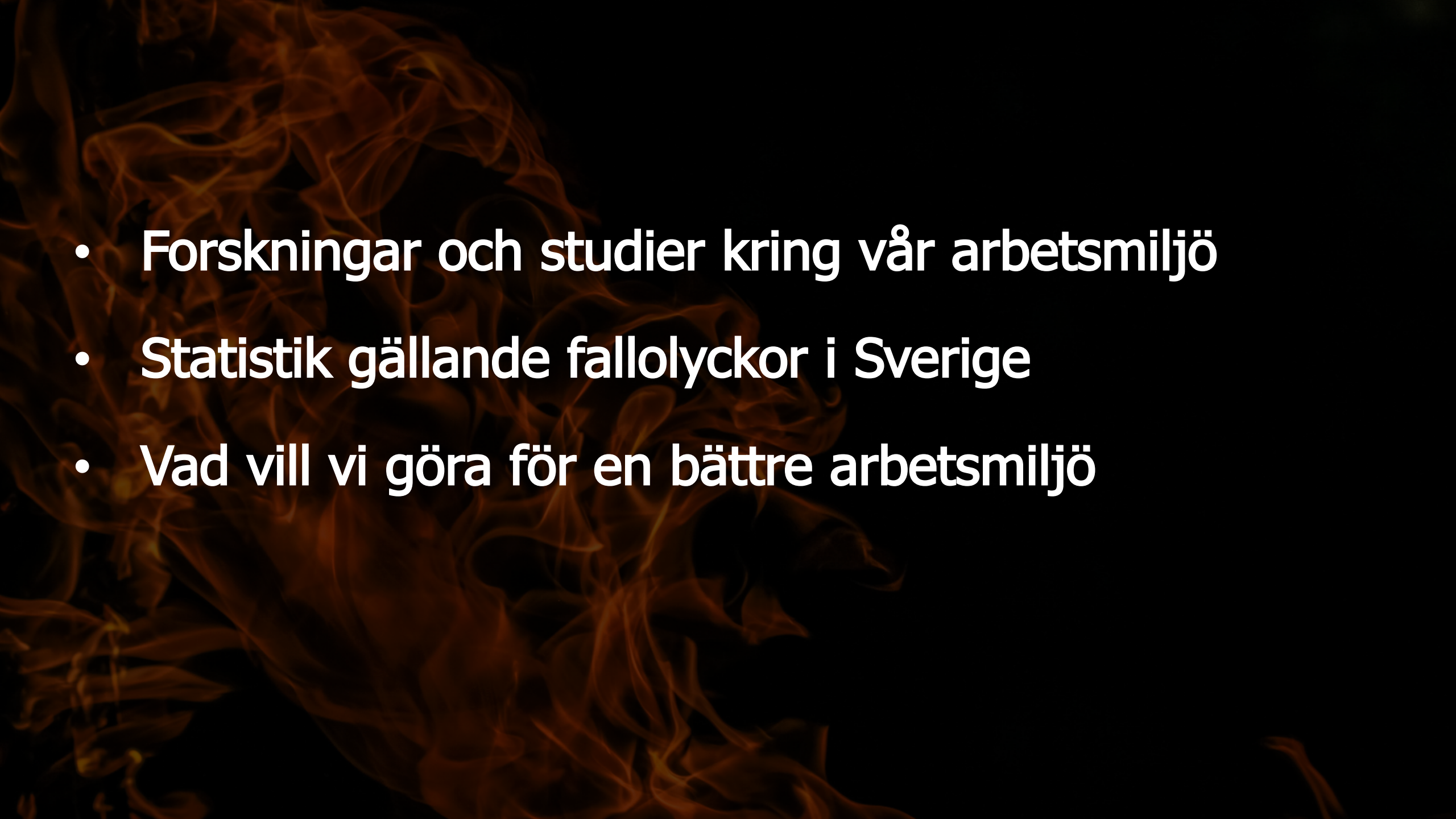




Lars **Anderman**

Johan **Schön**

- 
- Forskningar och studier kring vår arbetsmiljö
 - Statistik gällande fallolyckor i Sverige
 - Vad vill vi göra för en bättre arbetsmiljö

Sir Percival Pott

(1713-1788)

In 1775, Sir Percival Pott, a surgeon in England, saw a clear connection between exposure to soot and cancer (scrotum cancer) in chimney sweeps.

This is considered to be the first connection between exposure in an occupation and cancer.



Martina Berglund

Linköping Universitet





Sammanställning



Study	Study focus	Studied time period/s	Number of studied chimney sweeps
Hogstedt et al (1982)	Cause of death	1951-1979	2048
Gustavsson et al (1987)	Cause of death	1951-1982	5464
Jansson et al (2012)	Cause of death	1952-2006	6374
Hogstedt et al (2013)	Cancer	1958-2006	6320
Gustavsson et al (2013)	Cardiovascular disease	1991-2005	4436
Alhamdow et al (2016)	Eye and respiratory problems	1975-1999, 2000-2009, 2011	483

- 
- POLYAROMATISKA KOLVÄTEN (PAH)
 - KOLPARTIKLAR
 - NICKEL
 - BLY
 - KROM
 - KADMIUM
 - ASBEST
 - KOLMONOXID
 - SVAVELFÖRENINGAR
 - KVÄVEOXIDER
 - DAMM
 - KEMIKAlier



Sammanställningen
visar att sotare har
procentuell högre risk
än normalt i följande
fall:



HJÄRTINFARKT,
KÄRLKRAMP **21%**



MAGCANCER 25%



SJÄLVMORD 36%



KRONISK OBSTRUKTIV
SJUKDOM (KOL) 52%



TARMCANCER 72%



ASTMA, BRONKIT,
EMFYSEM **72%**



PSYKISK SJUKDOM **91%**

A warm, dimly lit interior scene featuring a fireplace. A fire burns brightly in the hearth, casting a golden glow. The fireplace is surrounded by a dense stack of cut logs. To the left, a wicker basket is filled with more firewood. A small, round, metallic container sits on the floor in the foreground. The overall atmosphere is cozy and rustic.

LUNG**CANCER 94%**



SKRUMPLEVER
109%



MATSTRUPSCANCER

114%



LEVERCANCER 122%



ALKOHOLISM 127%

Ser det bättre ut idag?

Post-graduate student A Alhmadow's thank you list

My supervisors

Karin Broberg
Håkan Tinnerberg
Per Gustavsson
Maria Albin

- All participants in our studies
- Swedish chimney sweeps trade union (Kommunal)
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My mentor

Joseph W DePierre



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Karolinska
Institutet



Karolinska forskning har rapporterats internationellt

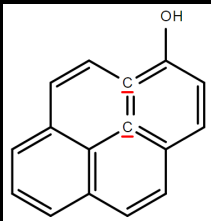


Study II – Methods:

(markers of PAH exposure and cardiovascular disease)

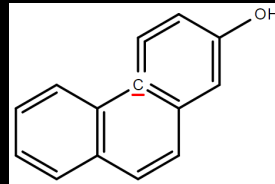
Markers of PAH exposure

Method:
measuring PAH metabolites in
urine using (LC-MS/MS)



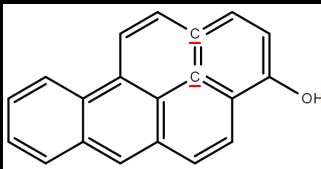
1-OH-pyrene

Group 3 (IARC)



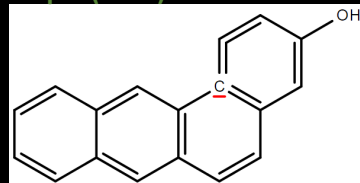
2-OH-phenanthrene

Group 3 (IARC)



3-OH-benzo[a]pyrene

Group 1 (IARC)



3-OH-benzo(a)anthracene

Group 2B (IARC)

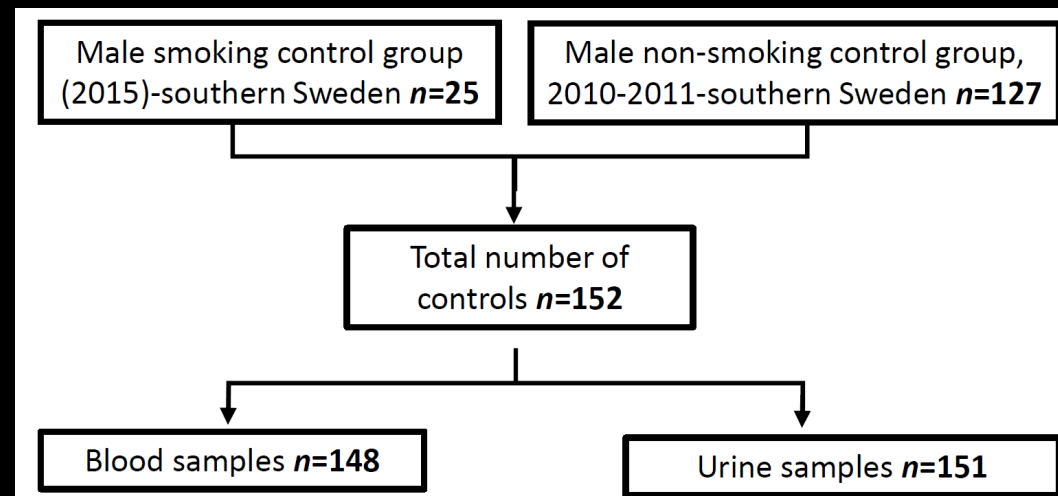
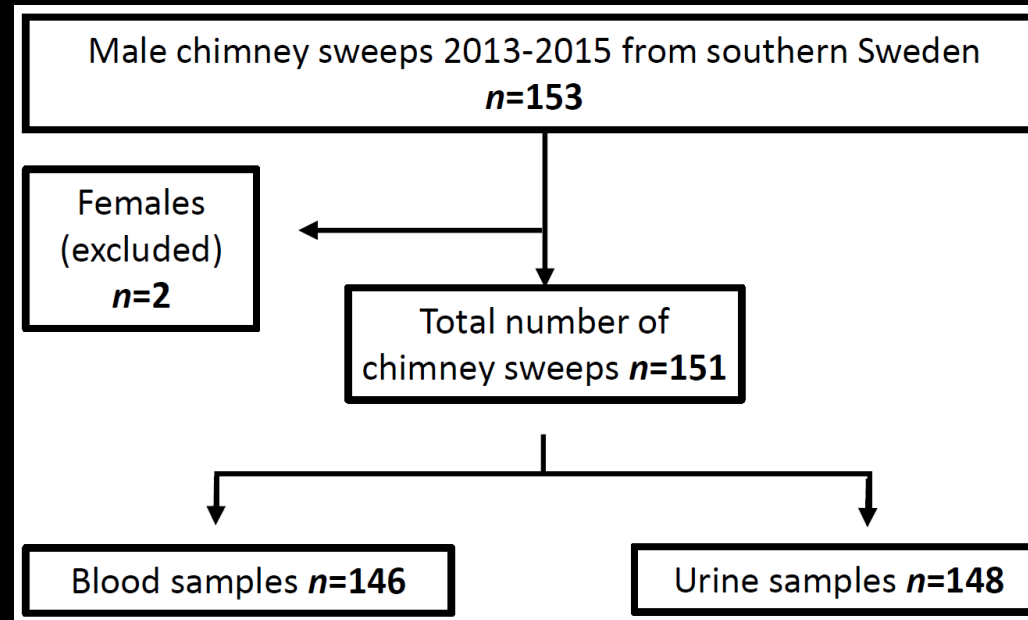
Markers of cardiovascular disease

Method:

- Blood pressure (**only chimney sweeps**)
- C-reactive protein CRP
- Homocysteine
- γ-glutamyltransferase (GGT)
- Low-Density Lipoprotein (LDL)
- ↑-Cholesterol
- High-Density Lipoprotein (HDL)
- Triglycerides (TG)

Markers were measured in
chimney sweeps and controls
unless otherwise stated

Study II - Methods



Study II - Results

Linear (adjusted):

Chimney sregression analyses weeps had higher PAH metabolites in urine (up to 7 times) compared with controls

All participants	Chimney sweeps				Controls				
	<i>n</i>	Median	Min	Max	<i>n</i>	Median	Min	Max	<i>P</i> [#]
1-OH-PYR*	148	0.39	0.02	8.8	151	0.06	0.00	0.73	<0.001
2-OH-PH*	148	0.57	0.08	7.1	151	0.14	0.04	3.1	<0.001
3-OH-BaP**	132	3.35	0.00	50.1	130	1.03	0.00	17.3	<0.001
3-OH-BaA**	142	4.78	0.39	43.3	144	1.66	0.04	21.0	<0.001
Only non-smokers	<i>n</i>	Median	Min	Max	<i>n</i>	Median	Min	Max	<i>P</i> [#]
1-OH-PYR	95	0.36	0.02	5.8	123	0.05	0.00	0.44	<0.001
2-OH-PH	95	0.50	0.08	7.1	123	0.12	0.05	3.09	<0.001
3-OH-BaP	90	2.88	0.00	16.2	105	0.88	0.00	17.3	<0.001
3-OH-BaA	92	4.16	0.39	35.0	117	1.51	0.04	6.8	<0.001

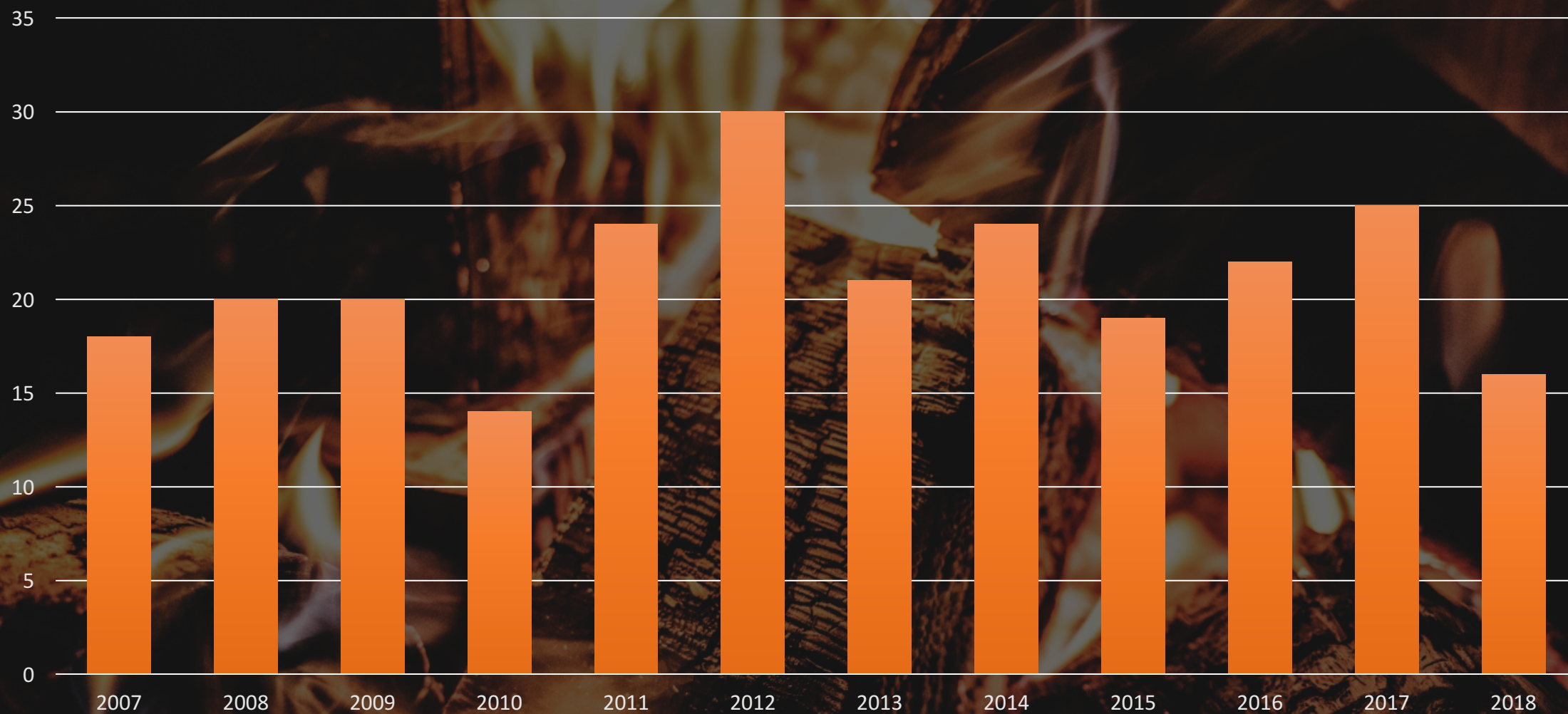
* µg/g creatinine

** ng/g creatinine

General linear model adjusted for age, BMI, and smoking status

Fallolyckor i Sverige

RAPPORTERADE FALLOLYCKOR (AFA)



- **I genomsnitt 20 fallolyckor/år som leder till sjukskrivning.**
- **Enligt statistik hos Arbetsmiljöverket så handlar 78% av samtliga arbetsmiljöolyckor om fallolyckor**
- **Ca 85 % av dessa kan direkt kopplas till stegar**
- **En uppskattad kostnad under dessa 12 år uppgår till 21 miljoner kronor (Svenska)**

Hur kommer vi att gå vidare?



**INGEN SKA BLI SJUK PÅ GRUND AV SITT
INOMHUSKLIMAT**

**INGEN SOTARE SKA DÖ ELLER SKADAS PÅ
GRUND AV SITT YRKESVAL**

**INGA IMKANALS– ELLER
ELDSTADSRELATERADE BRÄNDER SKA
UPPSTÅ**



