

# Psykososiale tiltak etter terrorangrepet på Utøya 22. juli 2011: **Lyktes vi med å gi god hjelp?**



NKVTS, Januar 2016  
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President of ISTSS ([www.istss.org](http://www.istss.org))

# 22. Juli

Bombing av  
regjerningskvartalet

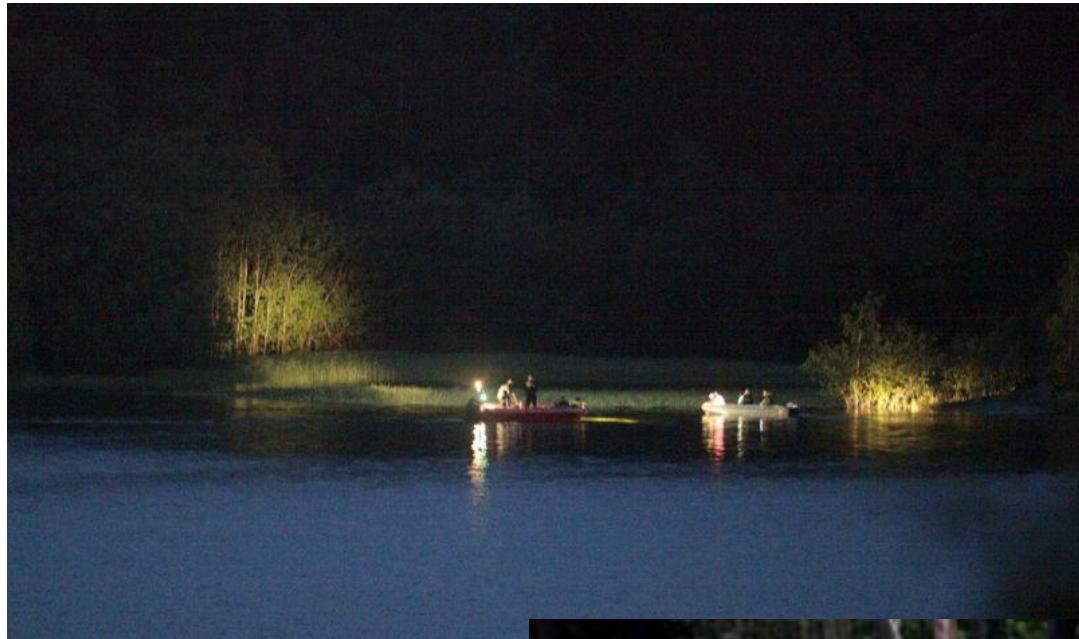


Skyting på Utøya

- ◆ 22.7 – to terrorist angrep
- ◆ 1. angrep:
  - ◆ Regjeringen
  - ◆ Bil bombe
  - ◆ Oslo
  - ◆ 8 mennesker ble drept
  - ◆ 92 skadde – 12 kritisk skadd
- ◆ 2. angrep:
  - ◆ Utøya
  - ◆ Sommerleir for AUF
  - ◆ Skyting
  - ◆ 69 mennesker drept
  - ◆ 56 skadd – 33 skuddskader









# Oppdraget



Det mørke  
landet

Hva **slags reaksjoner** ville de som overlevde få?



Hvilken **hjelp** ville de trenge?

# **Status (1) Characteristics of affected population**

- **69 deaths**
- **500 survivors**
- **Age – developmental stage**
- **High exposure to life danger**
- **Geographically spread out**





## NORWAY

The west:  
Survivors: 50

The middle:  
Survivors: 90

The East:  
Survivors: 200

The south:  
Survivors: 76

The North:  
Survivors: 74

## **Status (2) Characteristics of health & social services**

- Crisis teams
- General practitioners for all inhabitants
- Social services in municipalities
- Access to specialized services (psychologists and psychiatrists)
- Free health care



## **Status (3) Current knowledge of trauma**

- Acute reactions
- Well known risk factors
- PTSD and depression
- Fluctuation over time
- Recent disaster outreach in Norway



## **Status (4) Current knowledge of interventions**

- Efficient interventions?
- Consensus documents
- Unmet needs after disasters
- Knowledge-informed recommendations must be adapted to the nature of the disaster and available resources



# Hvilken kunnskap har vi? Hva kan vi stole på?



Expert **Consensus** Guidelines

Systematic  
review of  
RCTs with  
**meta-  
analyses**  
(Cochrane  
Review)

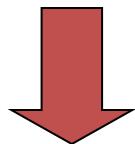
Systematic  
review and  
**clinician  
judgment  
of benefit**

**Status (1) Characteristics of affected population**

**Status (2) Characteristics of health & social services**

**Status (3) Current knowledge of trauma**

**Status (4) Current knowledge of interventions**



**The Outreach and Screening**

=national plan

=implement in existing health care system

=knowledge informed recommendations

# Recommendations (1)



## **Early and proactive outreach**

- early contact & support**
- contact person**
- continuity (at least one year)**

# Recommendations (2)



## **Targeted interventions for those in need**

- **Risk factors**
  - **Exposure/losses**
  - **Social support**
- **Levels of reactions (screening)**
  - **PTSD**
  - **Depression**
  - **Somatic complaints**
  - **Level of functioning**



# OPPDRAF 2.....



# Tema for forskningen

- Psykisk helse
  - Sosial støtte
  - Medieeksponering
  - Oppfølgingen fra hjelpeapparatet
- 
- Somatisk helse
  - Skole
  - Politiavhør (samarbeid med PHS)
  - Sosiale medier



# The Utøya Study

# Prosjektgruppen



Grete Dyb,  
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(NKVTSUiO)



Tine Jensen,  
Associate professor/  
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(UiO/NKVTS)



Siri Thoresen,  
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UiO)



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Lisa Govasli  
Nilsen, Mphil  
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Ingrid Bugge,  
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Gertrud Sofie  
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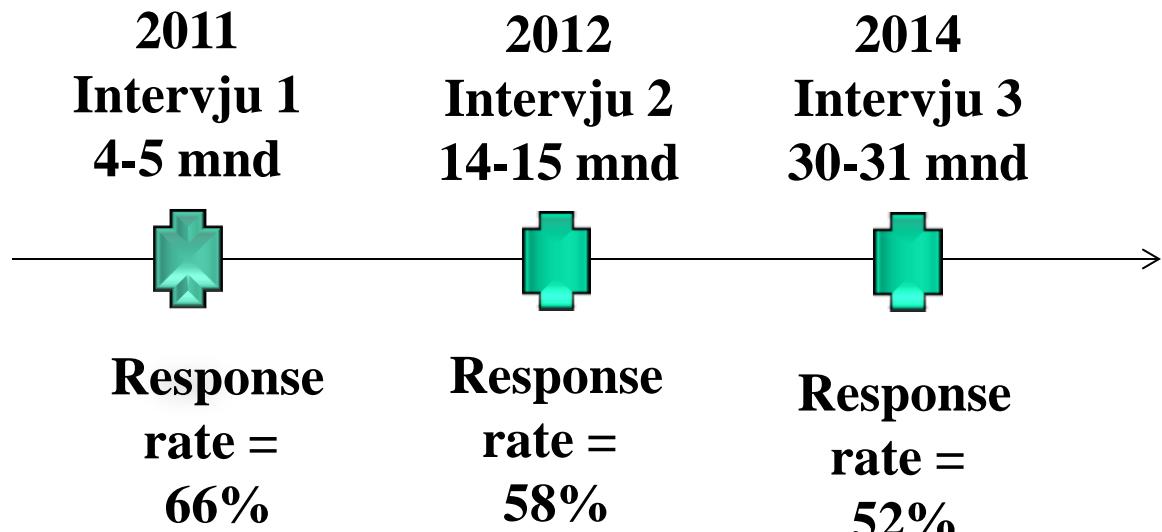


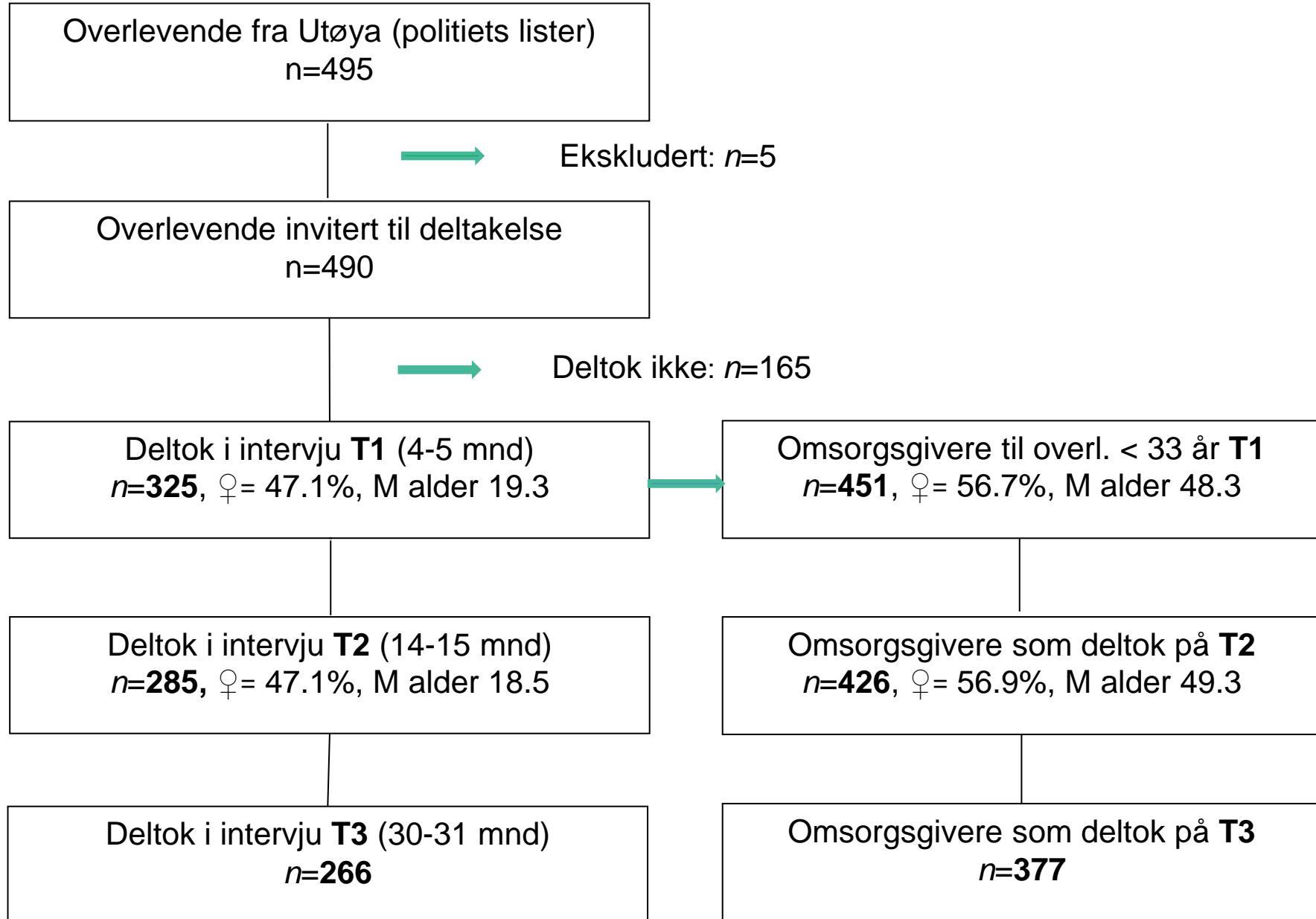
Synne Øien  
Stensland,  
cand. med.

# Studiens design



**Personlige intervjuer  
foretatt av  
helsepersonell med  
spesiell opplæring for  
studien**

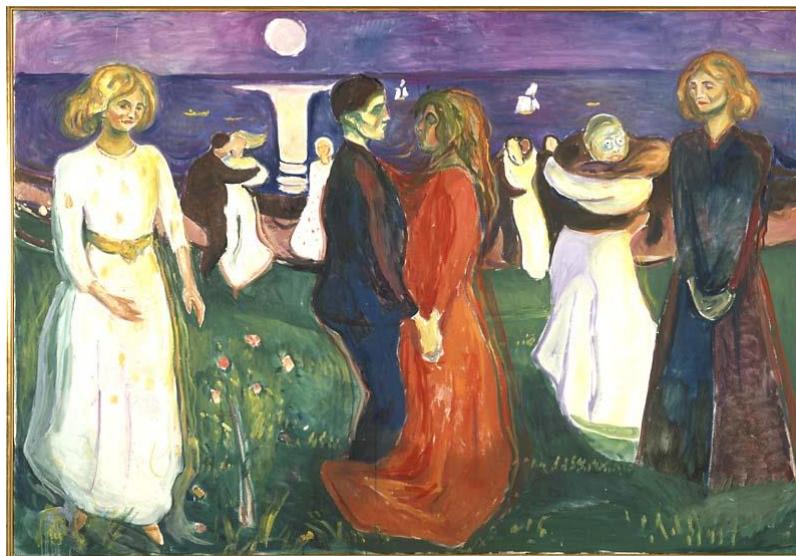


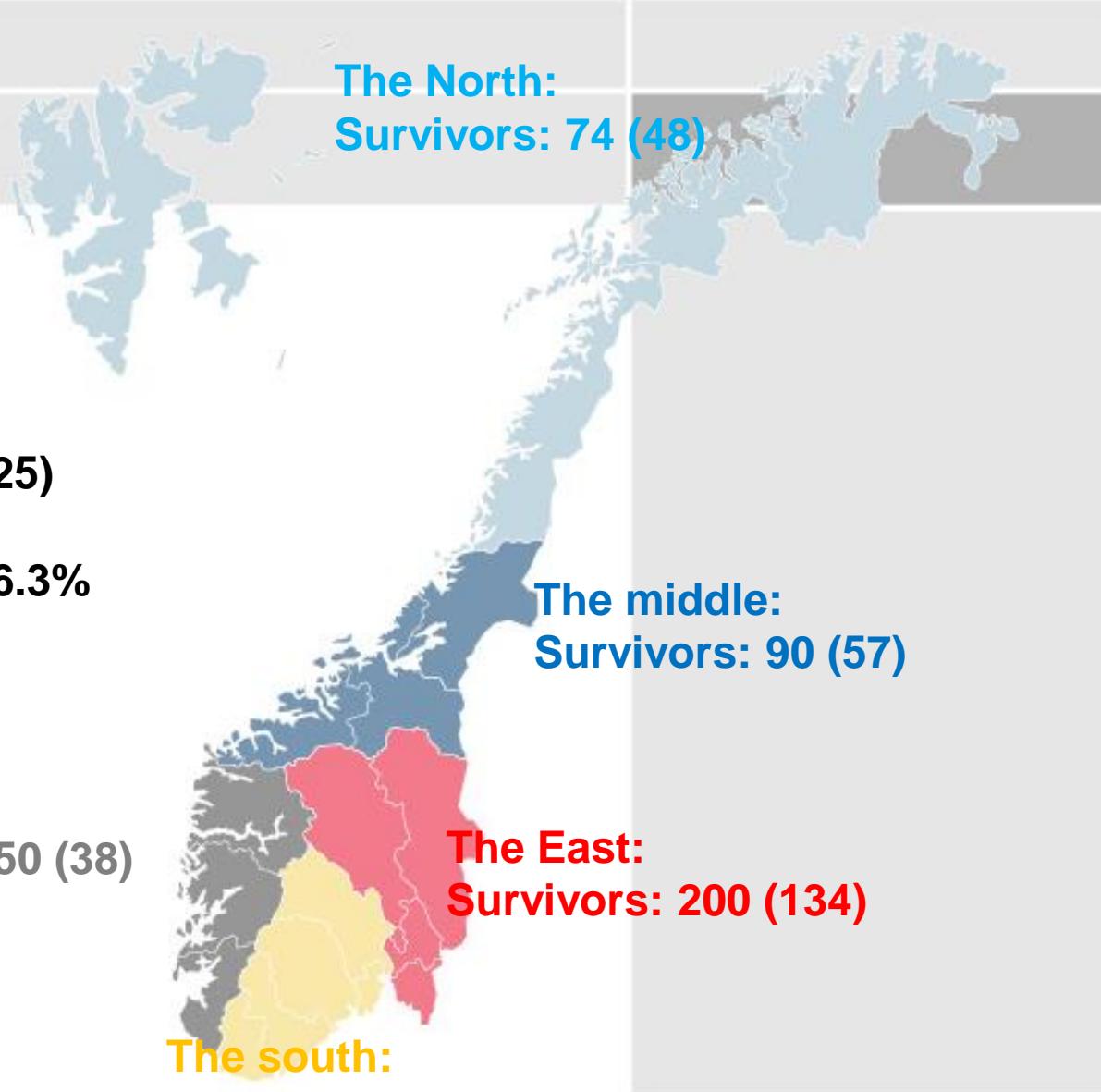


# Deltagelse

- 453 foreldre fra 270 familier

=> 60% av de som overlevde på Utøya 13<år<33 er representert med minst en forelder





**The North:**  
**Survivors: 74 (48)**

**Total:**  
**Survivors: 490 (325)**

**Response rate: 66.3%**

**The middle:**  
**Survivors: 90 (57)**

**The west:**  
**Survivors: 50 (38)**

**The East:**  
**Survivors: 200 (134)**

**The south:**  
**Survivors: 76 (44)**

Hva **slags reaksjoner** ville de som overlevde få?



Hvilken **hjelp** ville de trenge?

# Post-traumatic stress reactions in survivors of the 2011 massacre on Utøya Island, Norway

*Exploring the meaning of gender, age, traumatic exposure and social support in  
an unselected and highly exposed group*

Grete Dyb, Tine Jensen, Egil Nygaard, Øivind Ekeberg, Trond Diseth, Tore Wentzel-Larsen & Siri Thoresen.  
Oslo, 2013

Open access:

[http://bjp.rcpsych.org/content/bjprcpsych/204  
/5/361.full.pdf](http://bjp.rcpsych.org/content/bjprcpsych/204/5/361.full.pdf)

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## Background

Although youths in many countries have been exposed to terrorism, few studies have examined early risk and protective factors for the subsequent development of mental health problems.

## Aims

To investigate the levels of post-traumatic stress in survivors of the 2011 massacre on Utøya Island compared with the general population in Norway, and to identify predictive factors.

## Method

Four hundred and ninety survivors were invited to participate. Structured face-to-face interviews were performed 4–5 months after the attack.

## Results

There were 325 study participants (response rate 66%).

Survivors had been highly exposed to danger and loss. Post-traumatic stress levels were more than six times higher in survivors than in the general population. Predictors were female gender, minority ethnic status, high level of trauma exposure, pain, the loss of someone close and social support.

## Conclusions

Survivor characteristics that can be assessed in the early aftermath of a terrorist attack strongly predict the subsequent mental health problems of exposed youths. The highly elevated symptoms observed were largely attributable to the traumatic experience and reflect the mental health costs of the terrorist attack.

## Declaration of interest

None.

# Formål

- Undersøke **PTSD** hos overlevende og sammenligne reaksjonsnivået med generell befolkning
- Se på forhold som har betydning for nivået av reaksjoner
  - Hendelsen?
  - Frykt & hjelpeørhet?
  - Alder?
  - Kjønn?
  - Sosial støtte?

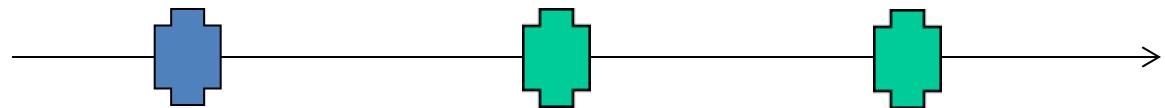
# Study design



**Wave 1**  
**4-6 mo**

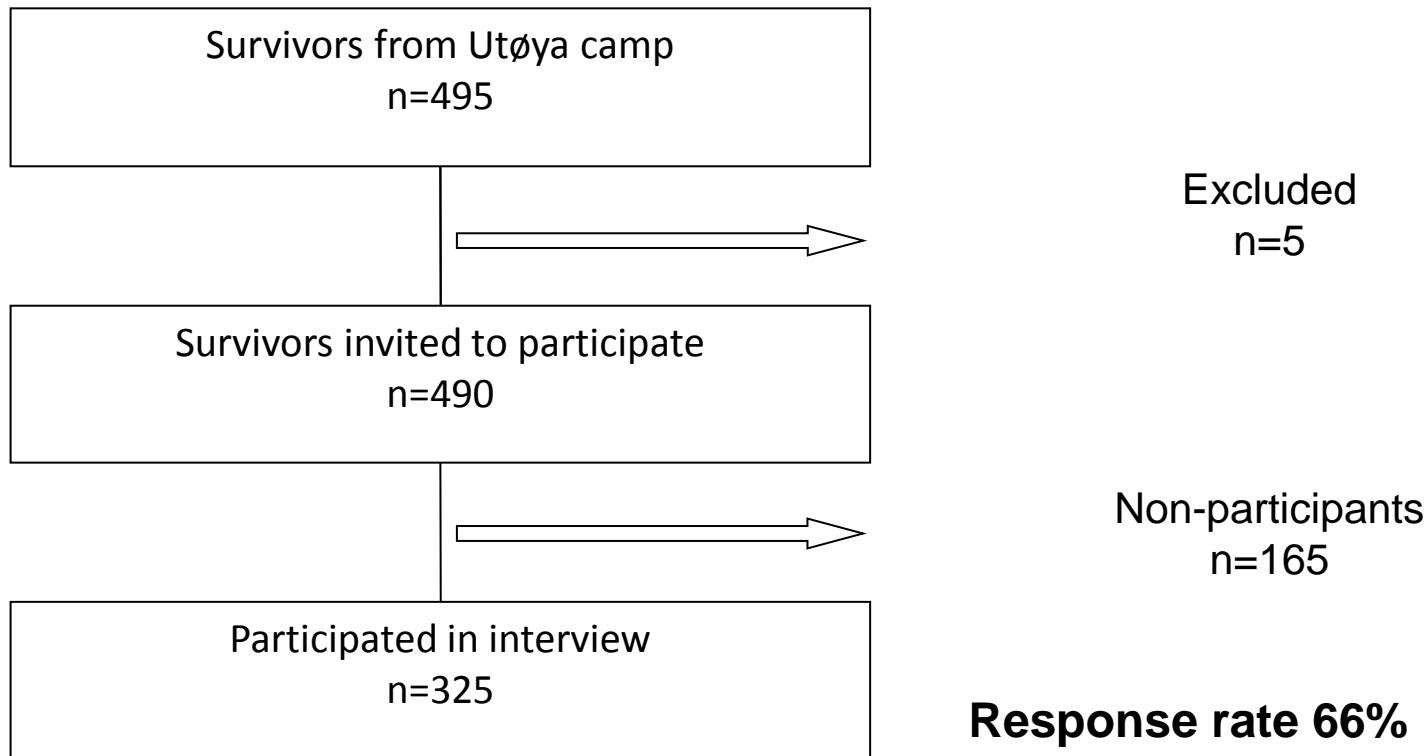
**Wave 2**  
**14-15 mo**

**Wave 3**  
**30-31 mo**



**Face to face interviews**

# Subjects



# Metode for innhenting av data

- **Hendelsen** (livsfare + vitneopplevelser) + tap + skade + smerte
- **Emosjonelle reaksjoner under eller umiddelbart etter hendelsen**  
(frykt, hjelpeøshet, skrekkopplevelser, forvirring, dissosiasjon, fysiologiske reaksjoner)
- **Sosial støtte** (Duke-UNC Functional Social Support Questionnaire)
- **PTSD** (The UCLA PTSD Reaction Index)
- **Generell psykiske helse** (Hopkins Symptom Checklist (HSCL-8))
- **Funksjonssvikt**
- **Livskvalitet**

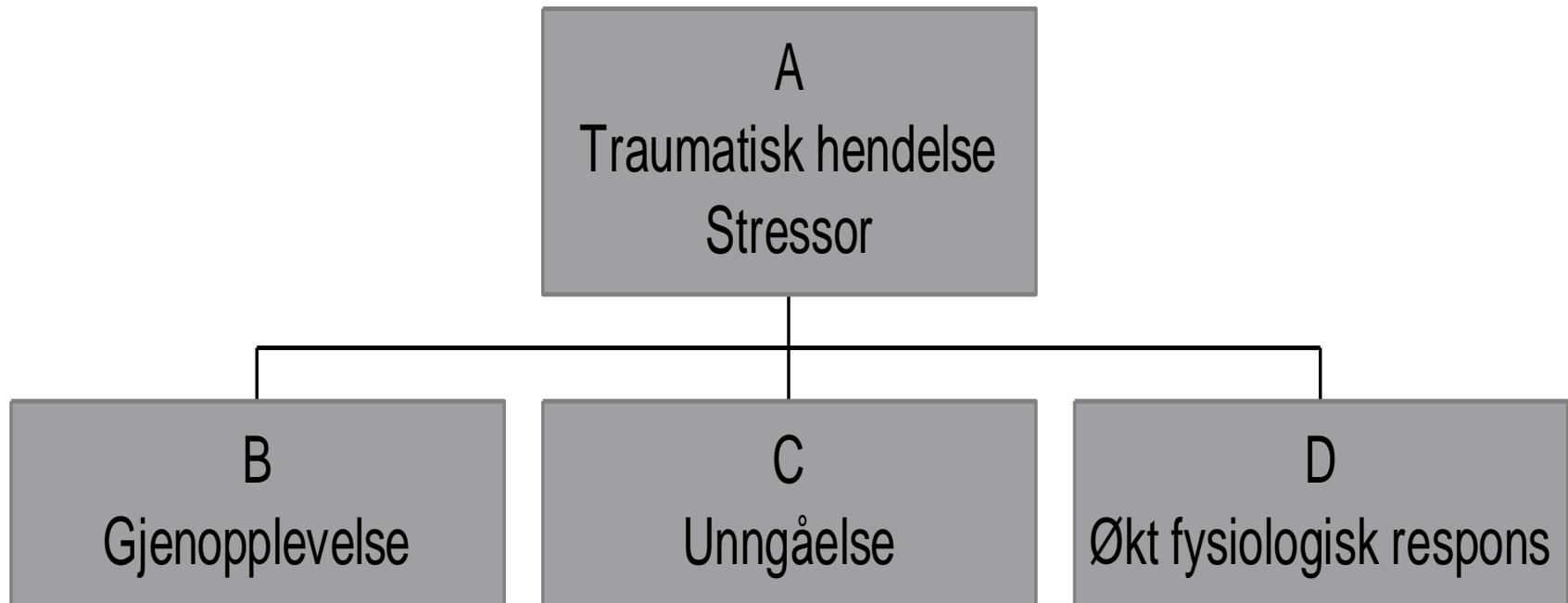
# Deltagerne i studien

<b>Descriptives</b>	<b>N /M</b>	<b>% /SD</b>
Jenter/kvinner	153	47.1
Alder	19.4*	4.6
AUF medlemmer	295	93.1
Norsk	285	87.7

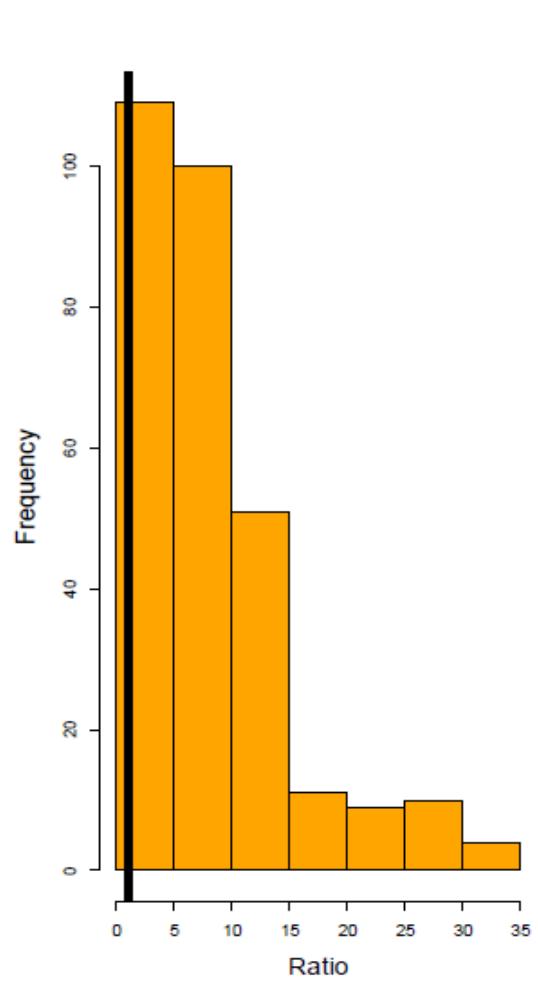
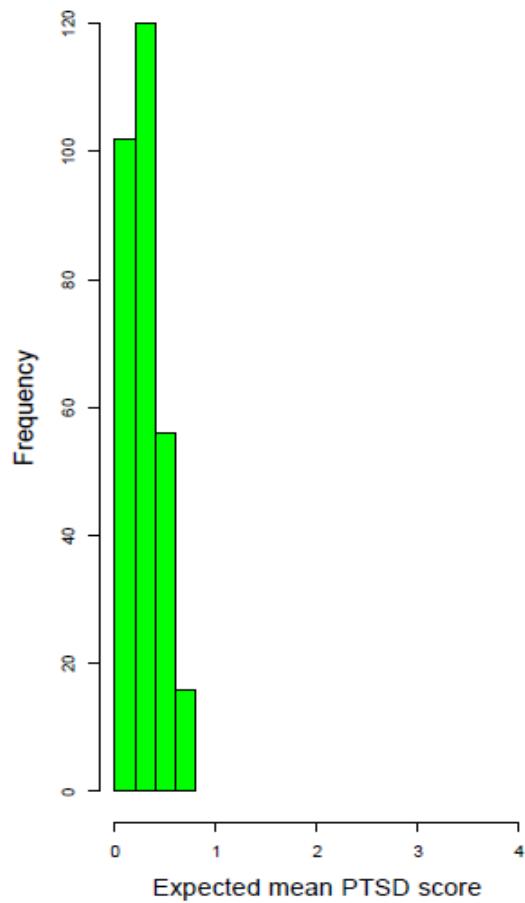
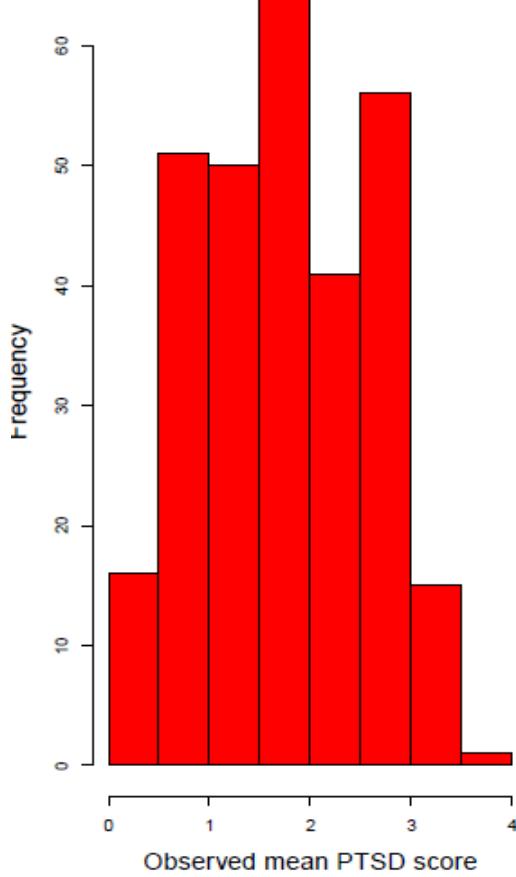
\* 92.5% < 25 år gamle

## Posttraumatisk stressforstyrrelse

Diagnostic and Statistical Manual of Mental Disorders, DSM-IV, American Psychiatric Association, 1994

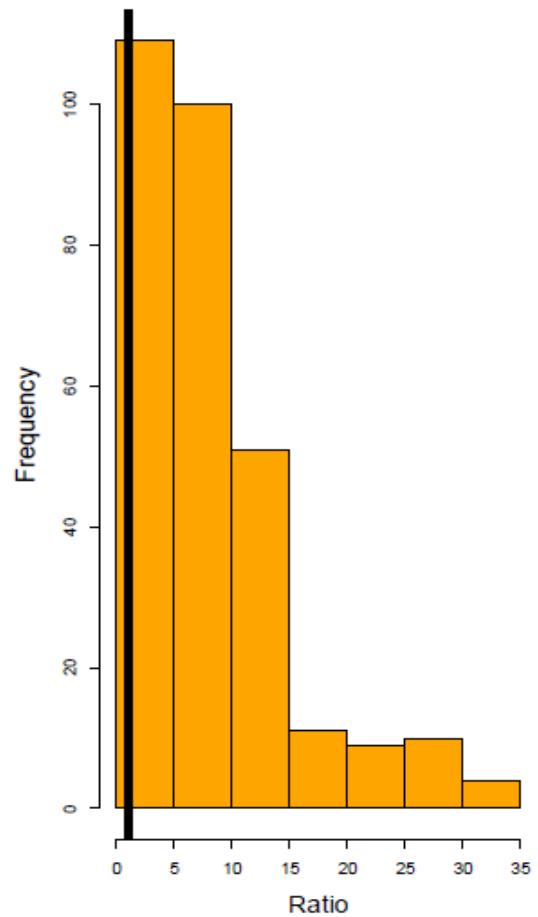
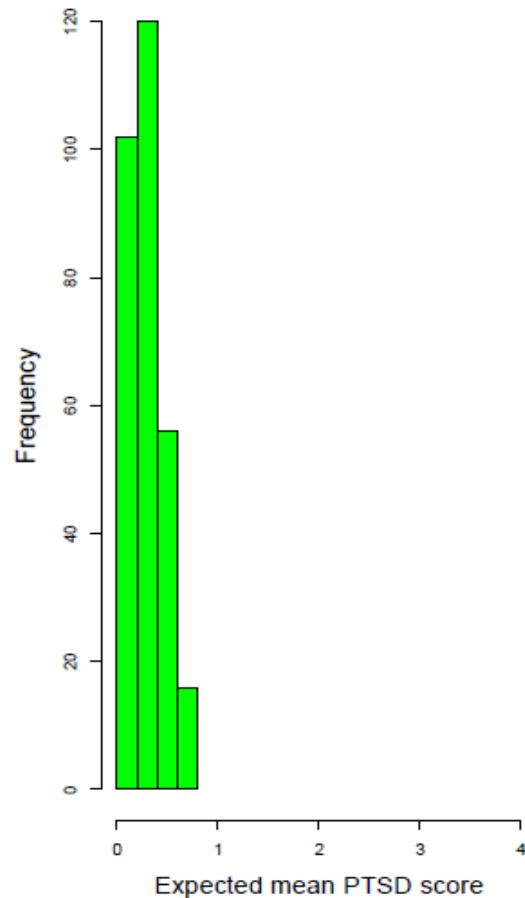
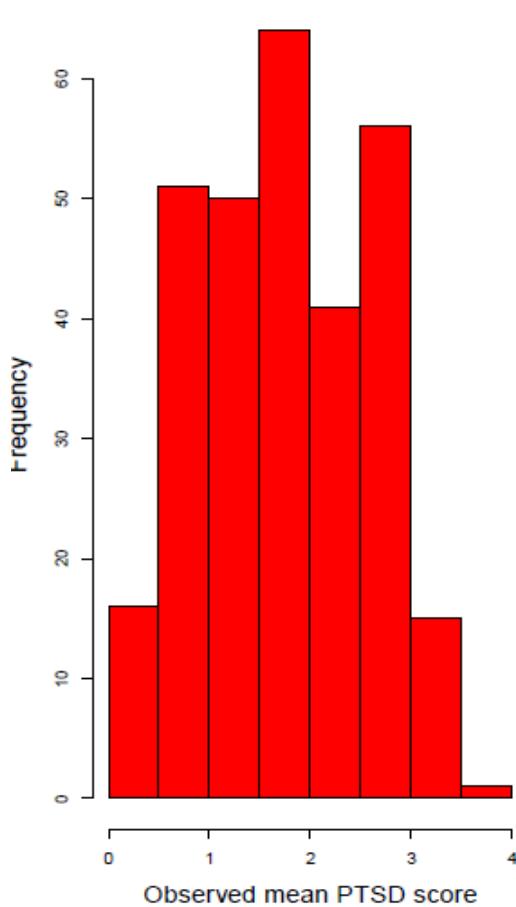


# PTSD hos overlevende sammenlignet med annen norsk ungdom



# PTSD in survivors compared to Norwegian youth

6.3 times higher in **survivors** than in the **general population**



# Hva opplevde de?

Så eller hørte gjerningsmannen?	73.1%	Så du noen bli skadet eller skutt?	64.1%
Flyktet fra gjerningsmannen?	96.9%	Hørte du noen bli skadet eller skutt?	82.6%
Hørte skytingen?	100%	Så du døde mennesker?	86.7%
Hørte mennesker som skrek?	93.8%	Var du i berøring med døde mennesker?	46.0%
Gjerningsmannen skjøt eller siktet mot deg?	45.1%		
Prøvde du å rømme ved å svømme?	37.5%	Følte du deg truet av politiet?	41.0%

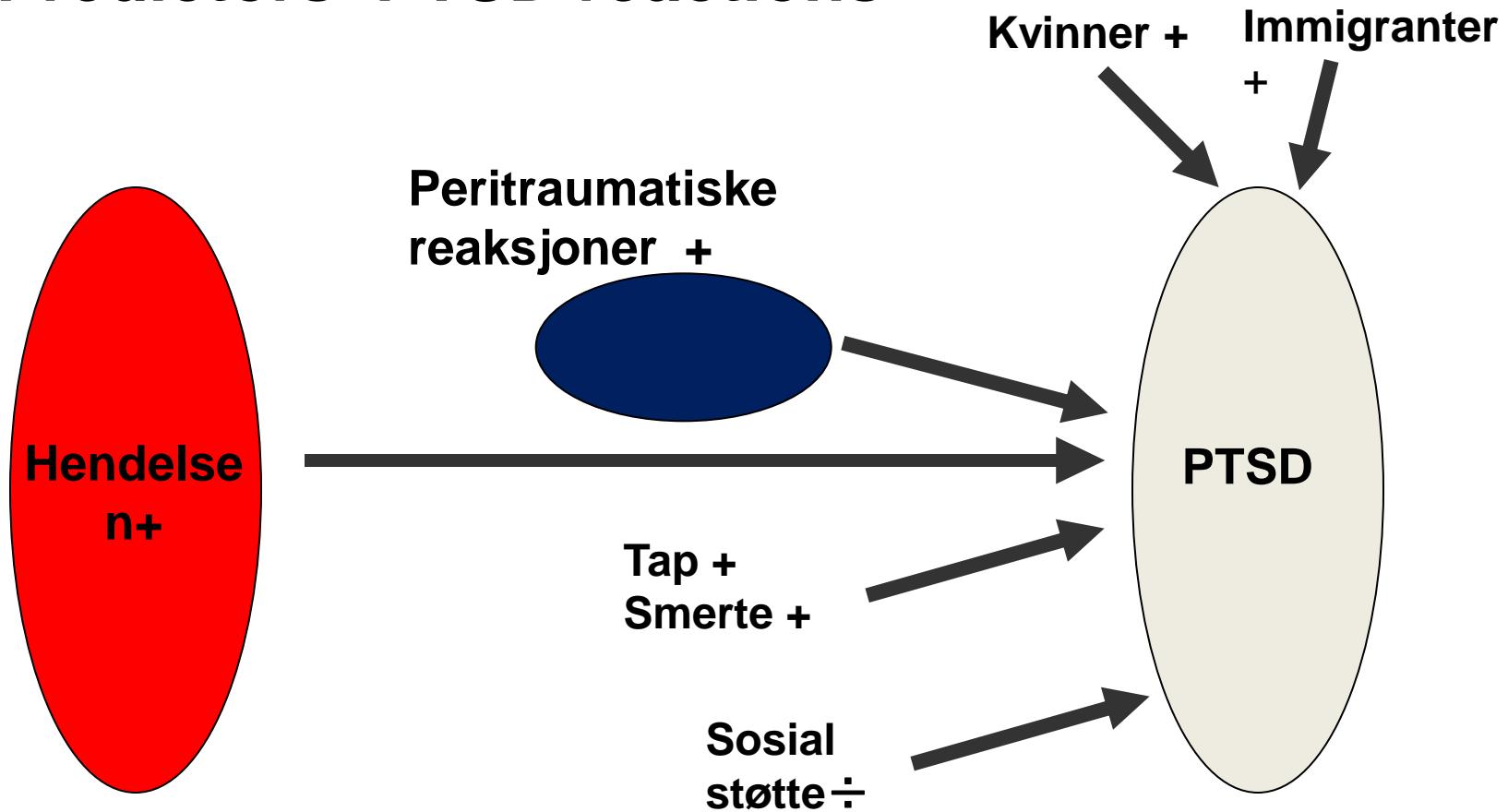
Gjennomsnitt: 9.5 hendelser (SD=2.2), range 3-14.

# Their experiences

Exposure	%
Fysisk skadd	18.2%
Smerter fra skader (nå: 4-5 mnd etter)	12.3%
Mistet en/flere nære personer	74.5%



# Predictors PTSD reactions



<sup>a</sup> Adjusted R<sup>2</sup> = 0.34, <sup>b</sup> Adjusted R<sup>2</sup> = **0.42**

# Prediction of PTSD

	Univariate		Multivariate	
	Regr coeff	p-value	Regr coeff	p-value
<b>Gender (women = 0)</b>	0.410 (0.260-0.560)	<0.001	0.341 (0.215-0.466)	<b>&lt;0.001</b>
<b>Age</b>	-0.015 (-0.032-0.001)	0.072	-0.015 (-0.028- -0.002)	<b>0.024</b>
<b>Ethnicity (Norwegian = 0)</b>	0.600 (0.372-0.829)	<0.001	0.291 (0.090-0.493)	<b>0.005</b>
<b>Sum of exposure (0-13)</b>	0.097 (0.063-0.131)	<0.001	0.033 (0.003-0.063)	<b>0.029</b>
<b>Peritraumatic reactions (0-4)</b>	0.384 (0.292-0.476)	<0.001	0.230 (0.147-0.314)	<b>&lt;0.001</b>
<b>Loss of someone close</b>	0.321 (0.143-0.498)	<0.001	0.258 (0.117-0.399)	<b>&lt;0.001</b>
<b>Current pain from injuries</b>	0.541 (0.310-0.772)	<0.001	0.308 (0.119-0.498)	<b>0.002</b>
<b>Social support (1-5)</b>	-0.482 (-0.608 - -0.356)	<0.001	-0.379 (-0.492 - -0.266)	<b>&lt;0.001</b>

Table 2 Linear multiple regression displaying associations between demographics, event characteristics, peritraumatic reactions and social support on posttraumatic stress reactions.

# KONKLUSJONER

- Høye nivå av PTSD
- Faktorer som har med hendelsen å gjøre har stor betydning –og kan tas med i vurdering av tiltak
- Sosial støtte er viktig – reduserer PTSD!

# Levels of distress when we first met them— 4/5 months

BJPsych

The British Journal of Psychiatry  
1–7. doi: 10.1192/bjp.bp.113.133157

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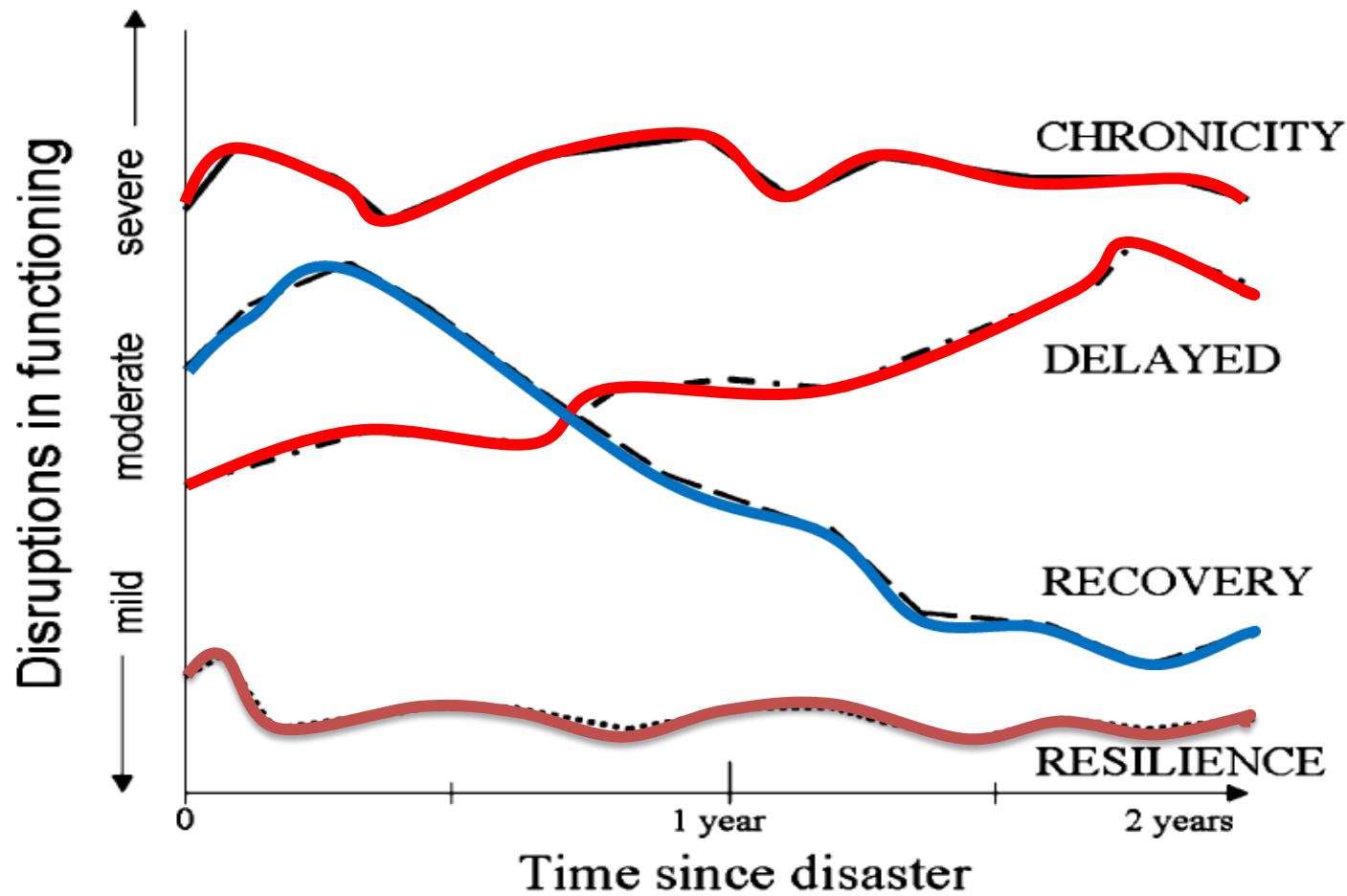
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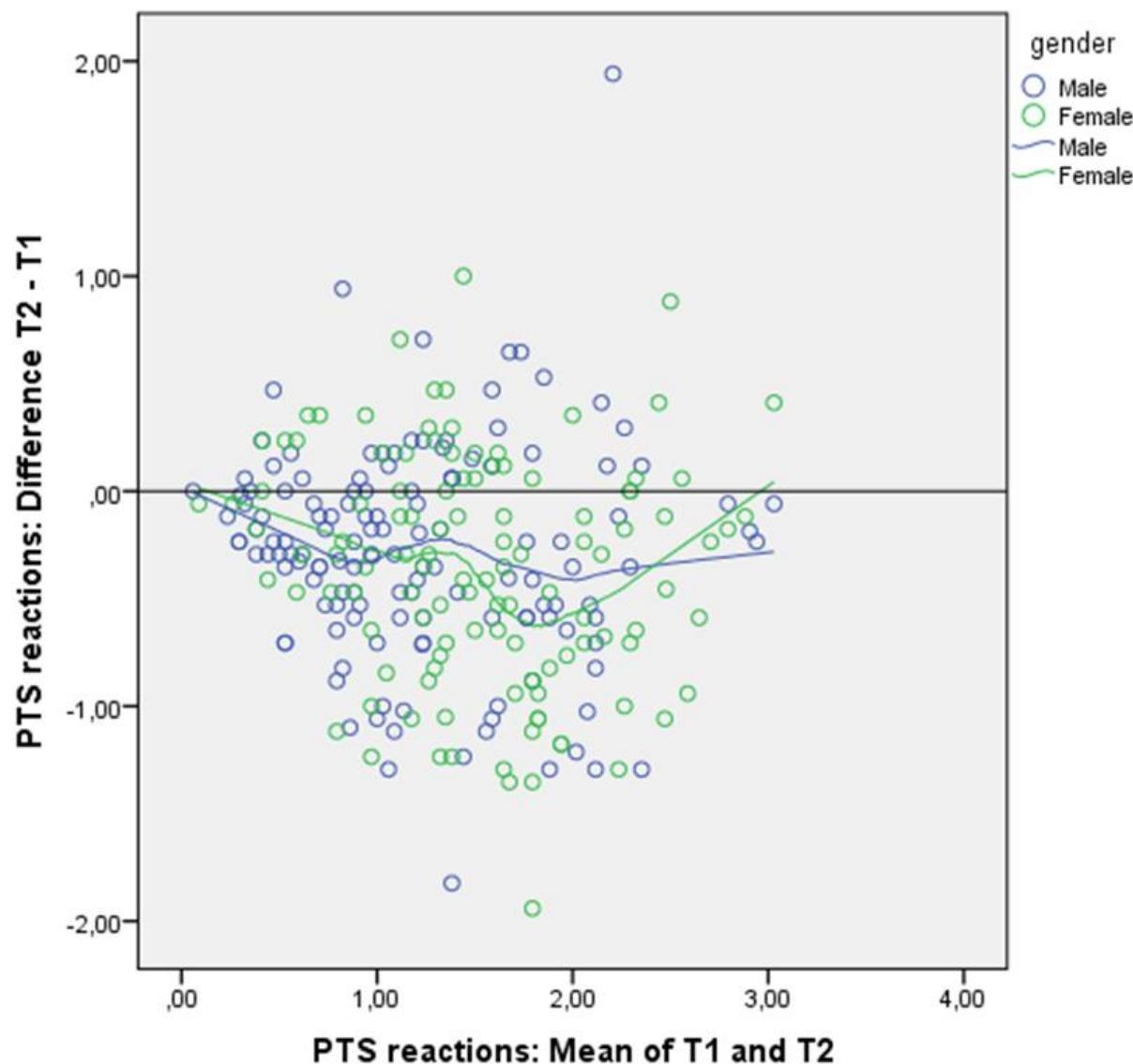
### Declaration of interest

None.

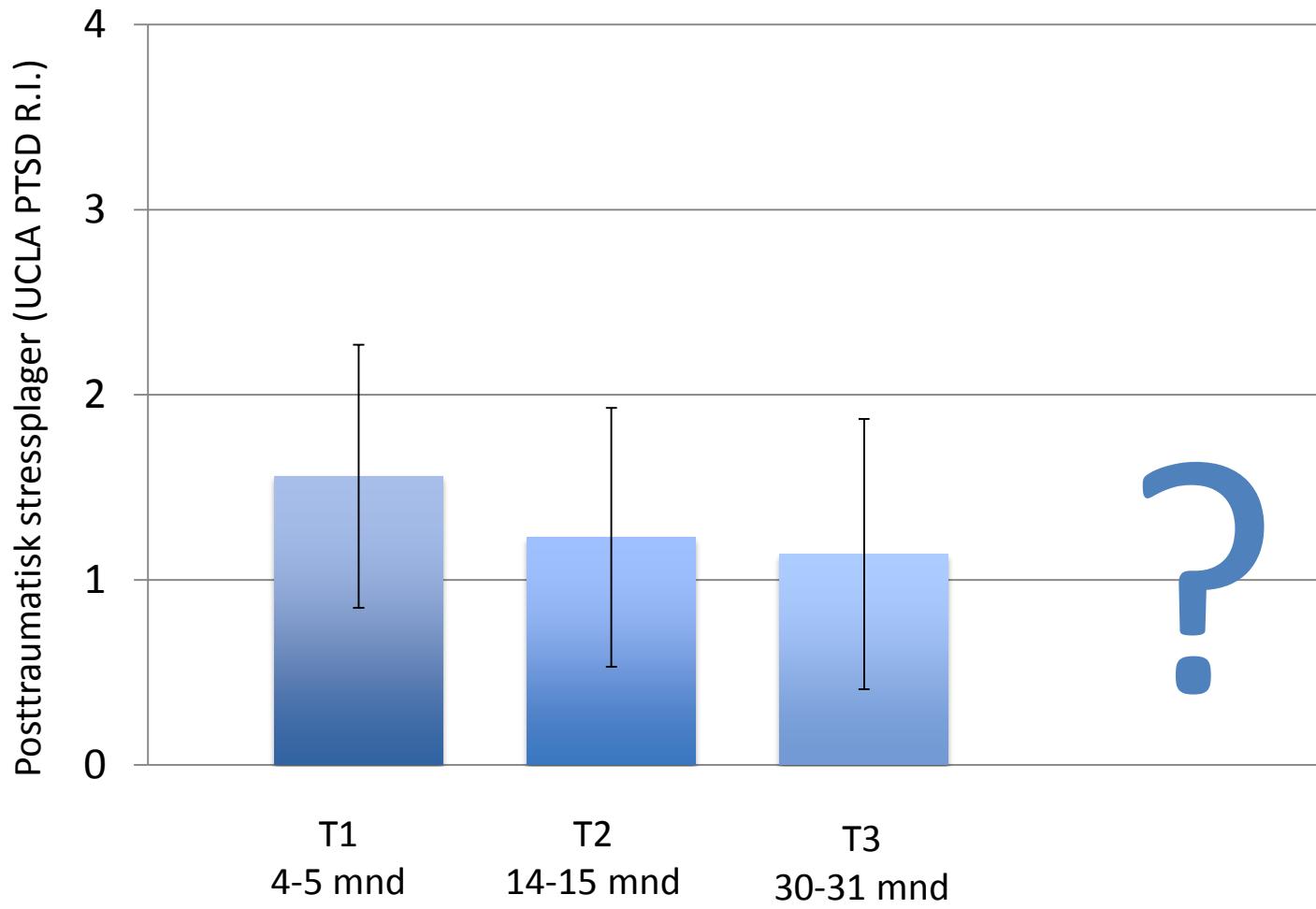


From: G.A. Bonanno, 2004, *American Psychologist*, 59, p. 21.

# Endring fra T1 til T2: PTS-reaksjoner



# Utvikling av PTSS over tid etter 22.07.11



Hva **slags reaksjoner** ville de som overlevde få?



Hvilken **hjelp** ville de trenge?

## Du lever

Du rusler gjennom skogen,  
med sol på hendene dine  
som varmen av blyge kjærtegn.

Da trår du på en kongle på stien,  
kjennen det mjuke trykket av den  
gjennom sålen på skoen din.

En liten hendelse, *så* liten at  
den nesten er ingenting.

Men vær hos den  
med hele ditt menneske.

For det hender deg på Jorden dette.

Du lever. Lever.

Hans Børli





UNDERSTANDING TERROR AND VIOLENCE IN THE LIVES OF CHILDREN AND ADOLESCENTS

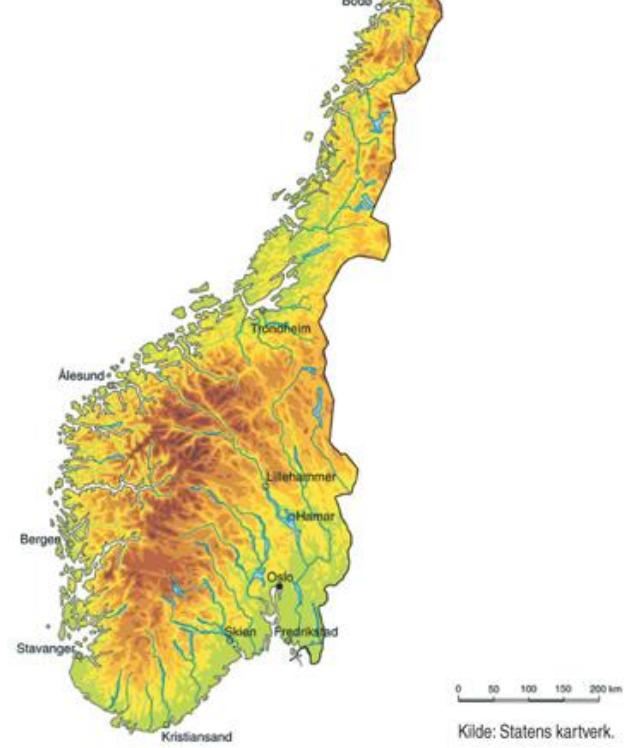
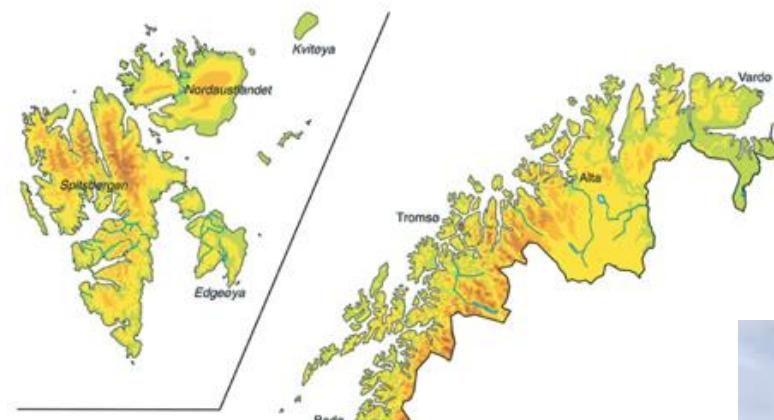
## **Early outreach to survivors of the shootings in Norway on the 22nd of July 2011**

Grete Dyb<sup>1,2\*</sup>, Tine Jensen<sup>1,3</sup>, Kristin Alve Glad<sup>1</sup>, Egil Nygaard<sup>1,3</sup> and  
Siri Thoresen<sup>1</sup>

<sup>1</sup>Norwegian Centre for Violence and Traumatic Stress Studies, Oslo, Norway; <sup>2</sup>Institute of Clinical Medicine, Faculty of Medicine, University of Oslo, Oslo, Norway; <sup>3</sup>Department of Psychology, Faculty of Social Sciences, University of Oslo, Oslo, Norway

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[http://www.ejpt.net/index.php/ejpt/article/view/23523/pdf\\_1](http://www.ejpt.net/index.php/ejpt/article/view/23523/pdf_1)

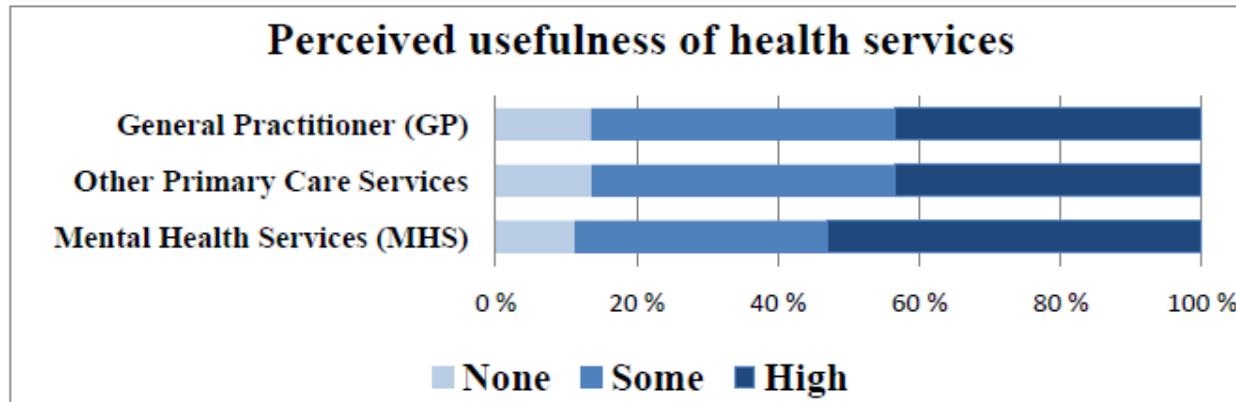
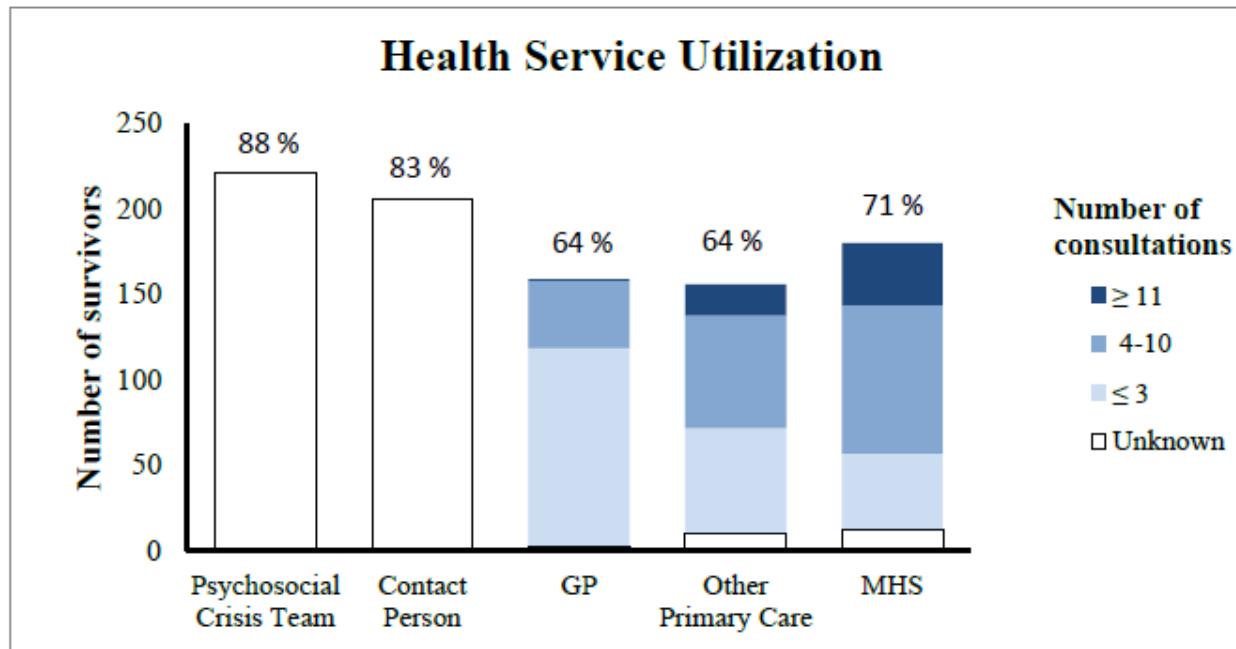


0 50 100 150 200 km

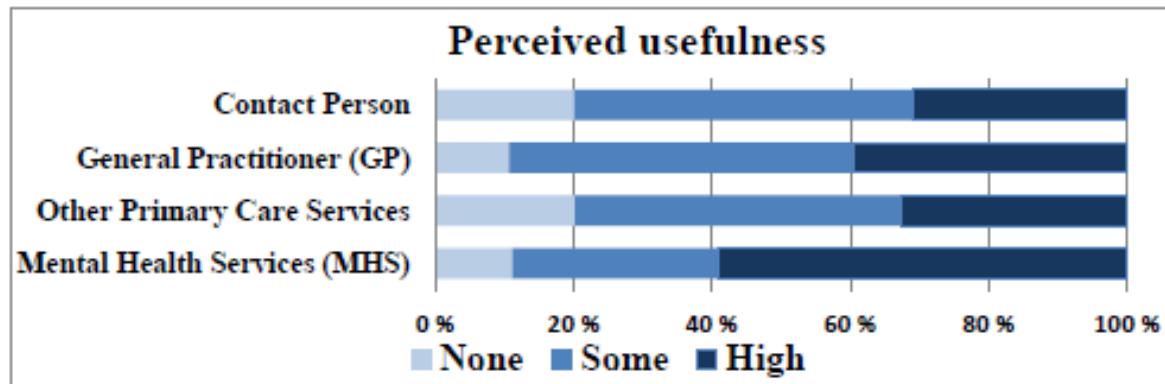
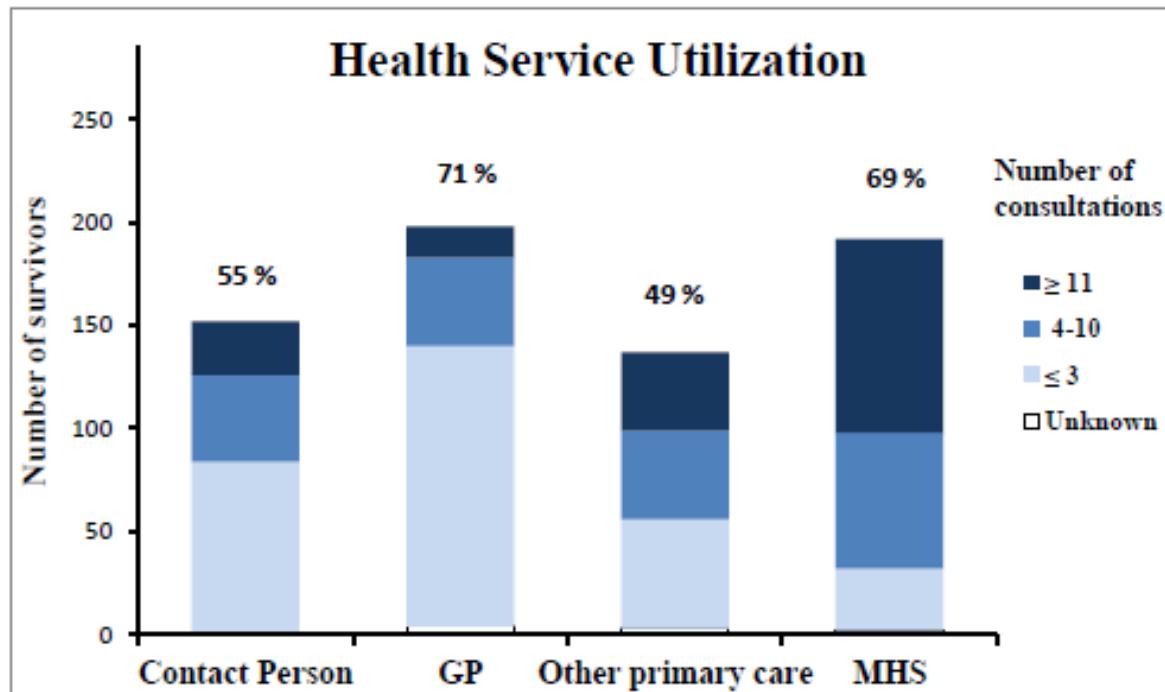
Kilde: Statens kartverk.



# De første 4-5 mnd etter hendelsene



# 5 – 15 måneder etter hendelsene



# Mental health service utilization

## 5-15 months after attack

<b>Characteristics</b>	<b>MHS utilization (n=280)</b>		<b>p-value</b>
	<b>Yes (n=192)</b>	<b>No (n=88)</b>	
	<b>n (%)</b>	<b>n (%)</b>	
Female (n=280)	99 (51.6)	33 (37.5)	0.029
Minor (<18 years) (n=280)	93 (48.4)	35 (39.8)	0.177
Non-Norwegian origin (n=274)	20 (10.6)	6 (7.0)	0.337
Living alone (n=278)	43 (22.4)	24 (27.9)	0.321
Financially disadvantaged (n=273)	39 (20.6)	16 (19.0)	0.763
Peripheral home municipality (n=278)	27 (14.1)	10 (11.5)	0.548
Relocation 0-5 months after attack (n=249)	20 (12.0)	13 (15.9)	0.396
Injured (n=273)	46 (24.7)	10 (11.5)	0.012
Death of someone close (n=280)	137 (71.4)	62 (70.5)	0.878

# Mental health service utilization

## 5-15 months after attack

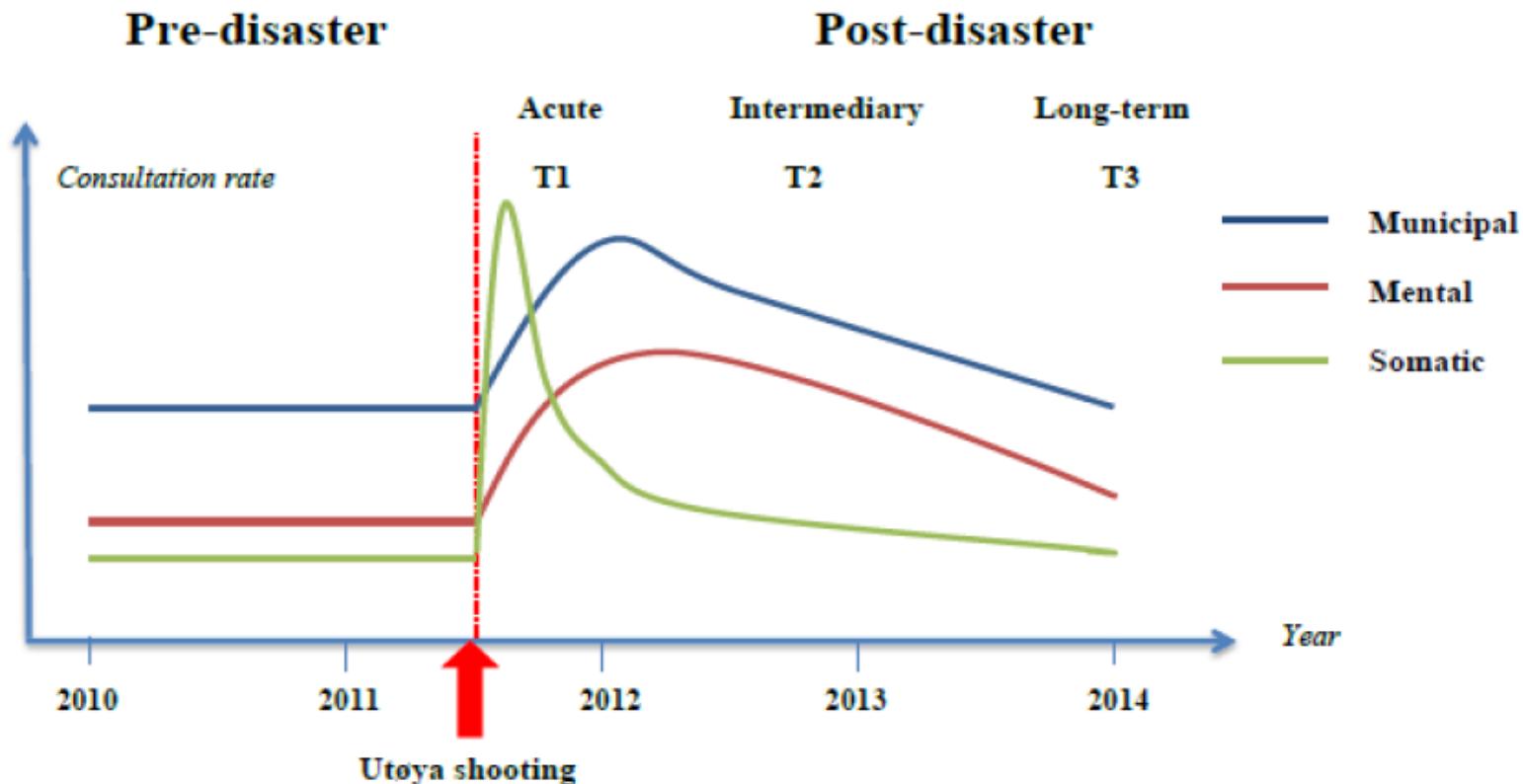
Characteristics	MHS utilization (n=280)			p-value
			Yes (n=192)	
		n (%)	n (%)	
<b>Categorical variables</b>				
PTSD at T1 (n=251)	Full	21 (12.4)	7 (8.5)	0.034
	Partial	64 (37.9)	20 (24.4)	
	No	84 (49.7)	55 (67.1)	
PTSD at T2 (n=280)	Full	16 (8.3)	2 (2.3)	0.015
	Partial	40 (20.8)	10 (11.4)	
	No	136 (70.8)	76 (86.4)	
Mental distress	T1 (n=251)	89 (52.7)	23 (28.0)	<0.001
	T2 (n=280)	62 (32.3)	18 (20.5)	0.042
Sleep problems	T1 (n=250)	81 (48.2)	18 (22.0)	<0.001
	T2 (n=277)	59 (31.1)	14 (16.1)	0.009
<b>Continuous variables</b>				
Mean sum of exposure (0-13) (n=275)		Mean (sd)	Mean (sd)	
		8.44 (2.29)	8.13 (2.12)	0.281
Social support	T1 (n=251)	4.52 (0.61)	4.62 (0.47)	0.125
	T2 (n=280)	4.54 (0.59)	4.58 (0.62)	0.677
Somatic symptoms	T1 (n=251)	1.82 (0.58)	1.54 (0.43)	<0.001
	T2 (n=280)	1.75 (0.54)	1.41 (0.37)	<0.001

# Characteristics associated with MHS utilization

## Multivariate logistic regression

	Unadjusted			Model 1 (n=251)			Model 2 (n=280)		
	OR	95% CI	p-value	Adjusted OR	95% CI	p-value	Adjusted OR	95% CI	p-value
<b>Female gender</b>	1.77	(1.06-2.97)	0.029	1.26	(0.69-2.27 )	0.452	1.16	(0.65-2.05 )	0.615
<b>Age</b>	1.03	(0.96-1.09)	0.421	1.03	(0.96-1.11)	0.425	1.02	(0.95-1.09)	0.564
<b>Predisaster MHS utilization</b>	1.40	(0.78-2.52)	0.262	1.06	(0.55-2.06)	0.865	0.97	(0.52-1.84)	0.935
<b>T1 PTSD</b>	2.49	(1.65-3.76)	<0.001	1.04	(0.48-2.25 )	0.918			
<b>T1 Mental distress</b>	3.37	(2.06-5.52)	<0.001	2.81	(1.16-6.78)	0.022			
<b>T1 Somatic symptoms</b>	2.95	(1.67-5.21)	<0.001	1.21	(0.56-2.63)	0.628			
<b>T2 PTSD</b>	2.61	(1.68-4.05)	<0.001				1.82	(0.87-3.79 )	0.112
<b>T2 Mental distress</b>	2.35	(1.48-3.73)	<0.001				0.67	(0.29-1.53)	0.338
<b>T2 Somatic symptoms</b>	5.54	(2.79-10.99)	<0.001				4.35	(1.75-10.83)	0.002

# Registerkobling: også prospektive data



# Konklusjoner

Tidlige tiltak ble implementert i stor grad i kommunene.  
Svært mange som overlevde ble henvist til  
spesialisthelsetjenesten.

Høy grad av bruk av helsetjenester over tid, både  
kommunale tilbud og spesialisthelsetjenesten.

# Next step?

## ❖ Linkage to registers

- Specialized health services
- Primary care
- National education database
- Sociodemographic data

## ❖ Comparisons

- Control group
- General population

## ❖ In-depth data at wave 3

- Survivors
- Parents



# Thank you

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## References:

<http://www.nkvts.no/fu/Sider/ProsjektInfo.aspx?prosjektid=1333>

[http://www.nkvts.no/fu/Documents/Opplev  
else-og-reaksjoner-hos-de-som-var-på-  
Utoya-22-juli-  
deloppsumming\\_17juli2015.pdf](http://www.nkvts.no/fu/Documents/Opplev<br/>else-og-reaksjoner-hos-de-som-var-på-<br/>Utoya-22-juli-<br/>deloppsumming_17juli2015.pdf)

