Screening for child abuse

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Athens

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Nothing to disclose

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Physico Therapeutic institute**

EuSEM 2017

Athene

It Should Not Hurt To Be A Child

Background

▪ Recognizing child abuse in an early stage and preventing recurrent abuse is crucial but difficult[1]

▪ Although victims of child abuse have a higher ED use than the general pediatric population, abuse often remains unrecognized[2,3]

▪ 0.2-10% of ED visits concern child abuse

▪ To identify high risk populations, checklists of warning signs for child abuse are being used.

[1]Éthier et al. Child Abuse Negl 2004 [2]Guenther et al. J Pediatrics 2009 [3]Louwers et al. Arch Dis Child 2011

child abuse

Violence at home

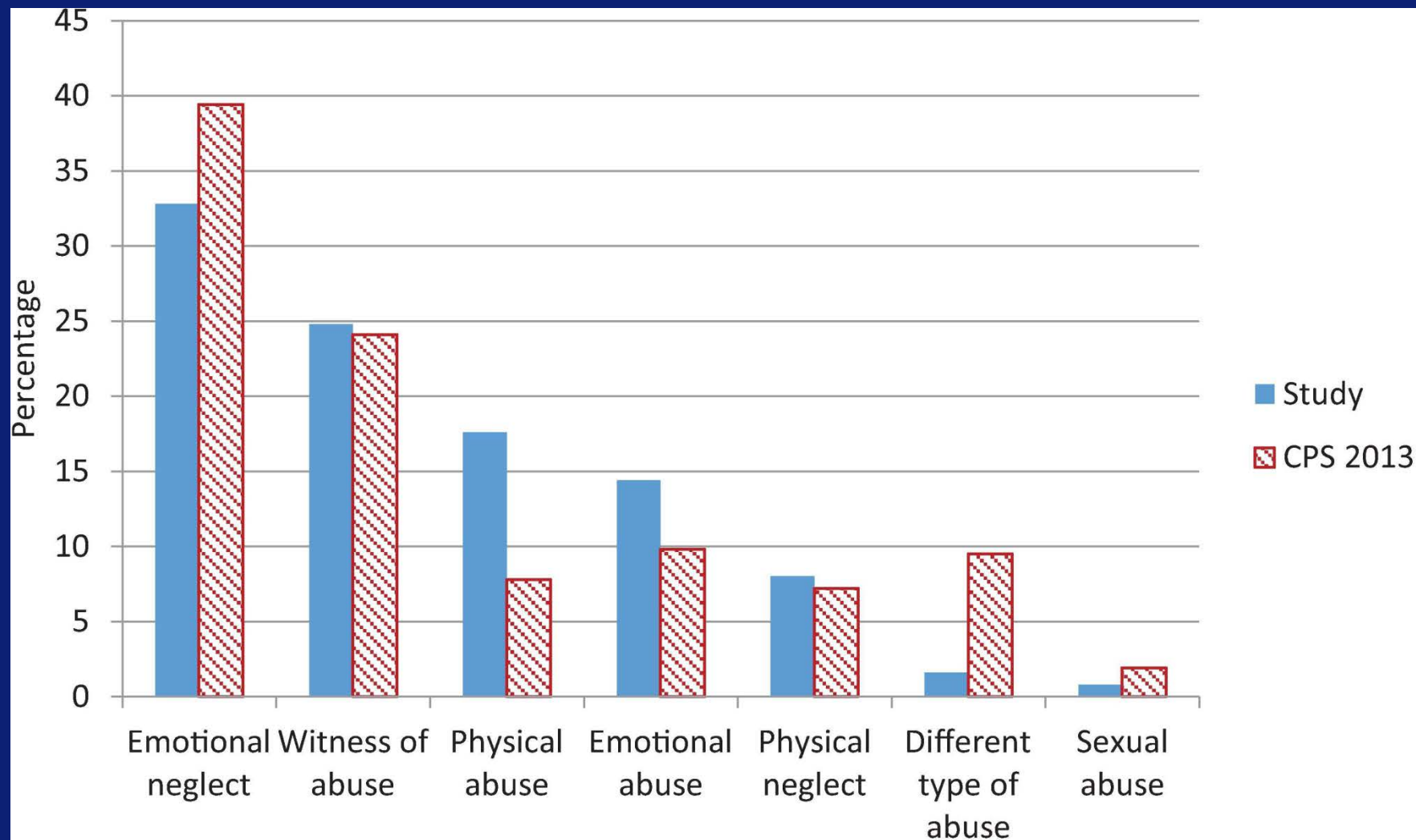# psychological maltreatment and neglect

Verbal Abuse Hurts Too!

refrain of medical treatment

Erasmus MC

Sexual abuse

Distribution of CAN

Strategies to recognize CAN at the Emergency department

Erasmus MC

Screening questionnaire

Top-toe inspection (complete physical inspection)

Standard referral of all children

> with parent(s) with alcohol/drugs problem
>
> with parent(s) with severe psychiatric disorders
>
> in families with partner violence

Aim

To validate the ESCAPE screeningtool at the emergency department

To assess the effect of screening for child abuse we conducted a prospective intervention cohort study at seven emergency departments in the Netherlands.

	yes	no
Is the history consistent?	yes	no
Was there unnecessary delay in seeking medical help?	yes	no
Does the onset of the injury fits with the developmental level of the child?	yes/n.a.	no
Is the behaviour of the child/the carers and the interaction appropriate?	yes	no
Are the findings of the top-to-toe examination conform the history?	yes	no
Are there other signals that makes you doubting about the safety of the child or other family members?	yes	no

If Yes describe the signals in the box 'Other comments' below.

Other comments

Conclusion

Twijfel over de
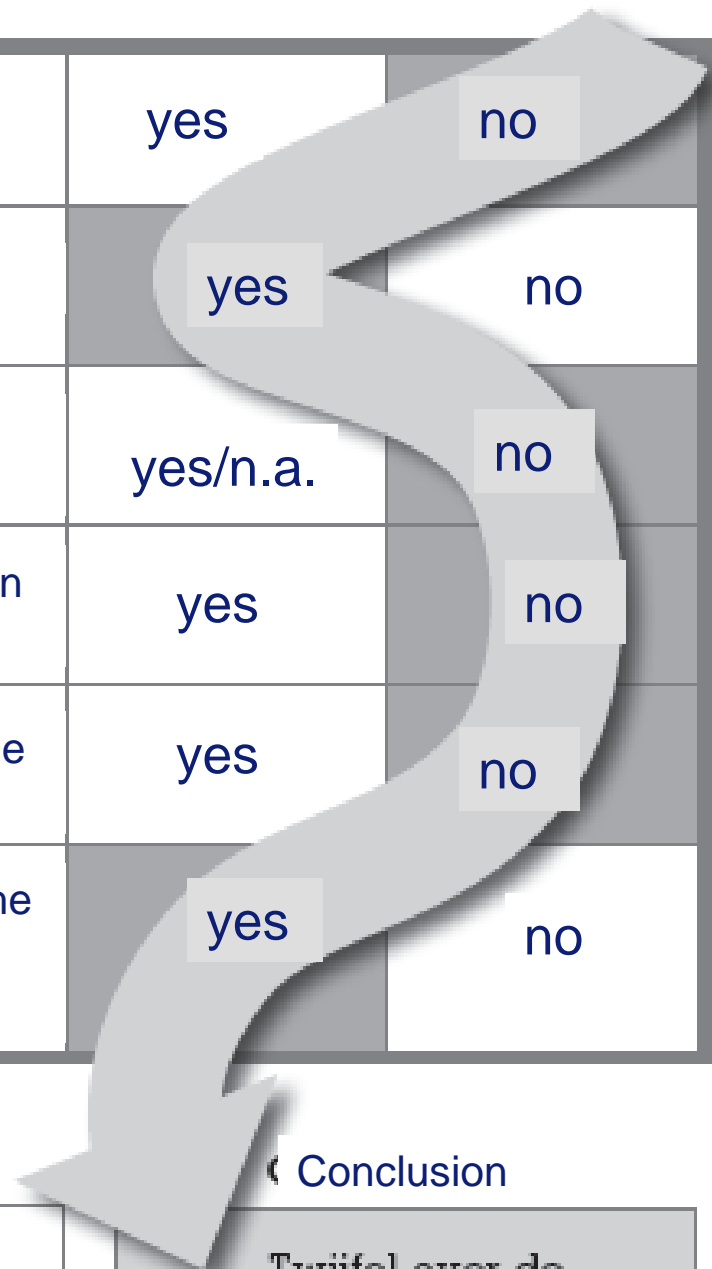
Methods

Province South Holland

3.5 million people

22 hospitals

Our study Escape

7 hospitals

200,000 ED visitors annually

Methods 1 Validation study

- Design: Prospective observational study

- All children ≤ 18 years visiting the ED were included

- Study period 2008-2009

- Case definition by an expert panel

- Validation of the ESCAPE checklist in 3 hospitals

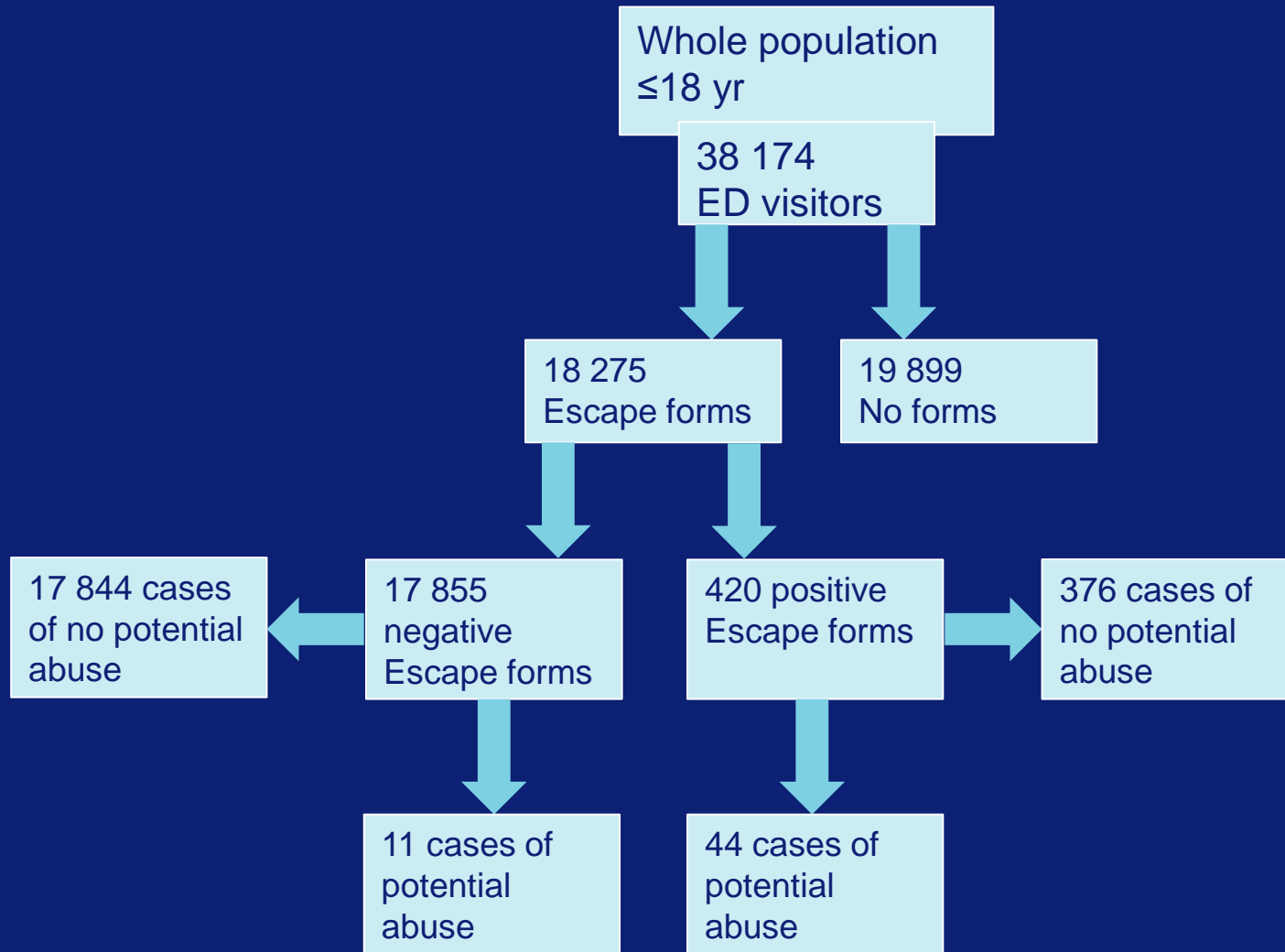- Sensitivity, specificity and OR were calculated

Case definition

- All children reported to the hospital child abuse teams

- Scored for 8 criteria by 4 professionals individually

- Criteria formulated with the child abuse definition

"Any form of threatening or violent physical, mental or sexual interaction with a minor which is perpetrated actively or passively by parents or other persons on whom the minor is dependent and causes or will probably cause physical or mental injury and serious harm to the minor'.
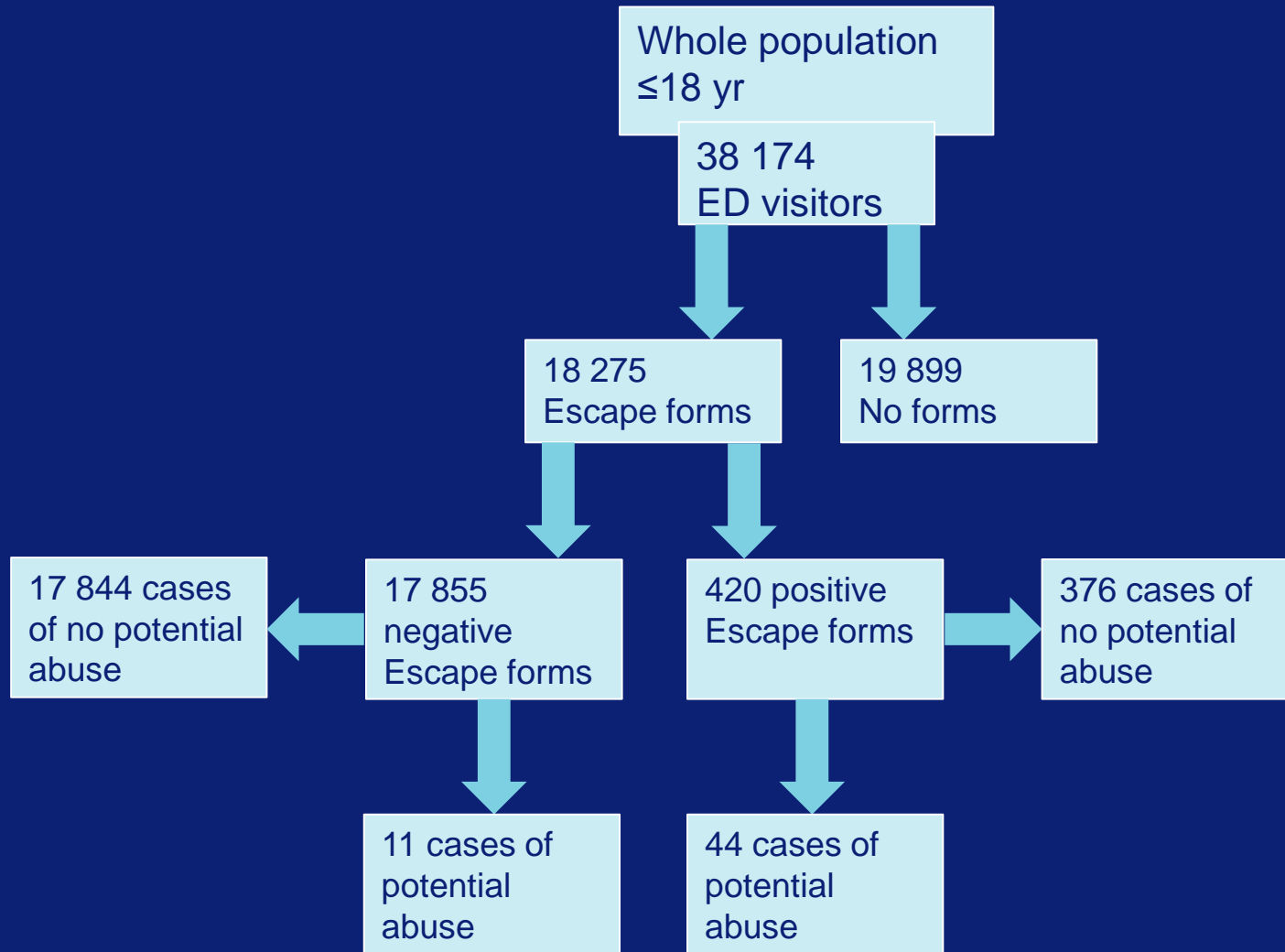
De Wet op de jeugdzorg (artikel 1, lid m)

Results validation Escape instrument

Erasmus MC

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                    ┌─────────────────────┐
                    │ Whole population    │
                    │ ≤18 yr              │
                    │  ┌──────────────────┤
                    │  │ 38 174           │
                    │  │ ED visitors      │
                    └──┴───────┬──────────┘
                       │                │
                       ▼                ▼
              ┌─────────────┐    ┌─────────────┐
              │ 18 275      │    │ 19 899      │
              │ Escape forms│    │ No forms    │
              └──────┬──────┘    └─────────────┘
                 │        │
                 ▼        ▼
```

| 17 844 cases of no potential abuse | ◄── | 17 855 negative Escape forms | 420 positive Escape forms | ──► | 376 cases of no potential abuse |

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                 │                         │
                 ▼                         ▼
```

| 11 cases of potential abuse | | 44 cases of potential abuse |

Results validation Escape instrument

Erasmus MC

Whole population ≤18 yr

38 174 ED visitors

18 275 Escape forms

19 899 No forms

17 855 negative Escape forms

420 positive Escape forms

17 844 cases of no potential abuse

376 cases of no potential abuse

11 cases of potential abuse

44 cases of potential abuse

Results

	Case of potential abuse	No case of potential abuse	
Screening positive (≥ 1 question positive)	44	376	420
Screening negative	11	17 844	17 855
	55	18 220	18 275

Sensitivity = 0.80   Specificity = 0.98

Validation

Screening questions	Odds ratios
Is the history consistent?	50.0 (23.6-106.2)
Was there unnecessary delay in seeking medical help?	17.4 (7.3-41.3)
Does the onset of the injury fits with the developmental level of the child?	137.0 (72.7-258.5)
Is the behaviour of the child/the carers and the interaction appropriate?	65.3 (32.3-131.9)
Are the findings of the top-to-toe examination conform the history?	82.1 (37.9-178.2)
Are there other signals that makes you doubting about the safety of the child or other family members?	182.9 (102.3-327.4)

Methods 2 Screening study

- All children ≤ 18 years visiting the ED were included, 7 hospitals, study period 2008- 2009

- Base line monitoring of 6 months

- Interrupted time series design in 23 months

- Interventions:

    - Implementation of a new checklist

    - Implementation of training for ED nurses

Study population

Characteristics	Cases not involving suspected child abuse	Cases of suspected child abuse	P*
Emergency department visitors	103 785 (99.8%)	243 (0.2%)	
Age, y			
0-4	41 952 (40%)	150 (62%)	< .001
5-8	17 865 (17%)	37 (15%)	
9-12	17 220 (17%)	25 (10%)	
13-18	26 748 (26%)	31 (13%)	
Gender (male)	58 322 (56%)	123 (51%)	.080
Referrer			<.001
Self-referral	49 990 (48%)	102 (42%)	
General practitioner	31 751 (31%)	76 (31%)	
Other	17 985 (17%)	54 (22%)	
Unknown	4059 (4%)	11 (5%)	
Treating physician			<.001
Surgeon	50 475 (49%)	151 (62%)	
Pediatrician	43 374 (42%)	75 (31%)	
Other	9493 (9%)	17 (7%)	
Unknown	443 (0.4%)	0	

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Results

Screening rate for child abuse

Legend:
- Screen rate All hospitals
- Screen rate Intervention hospitals
- Screen rate Control hospitals
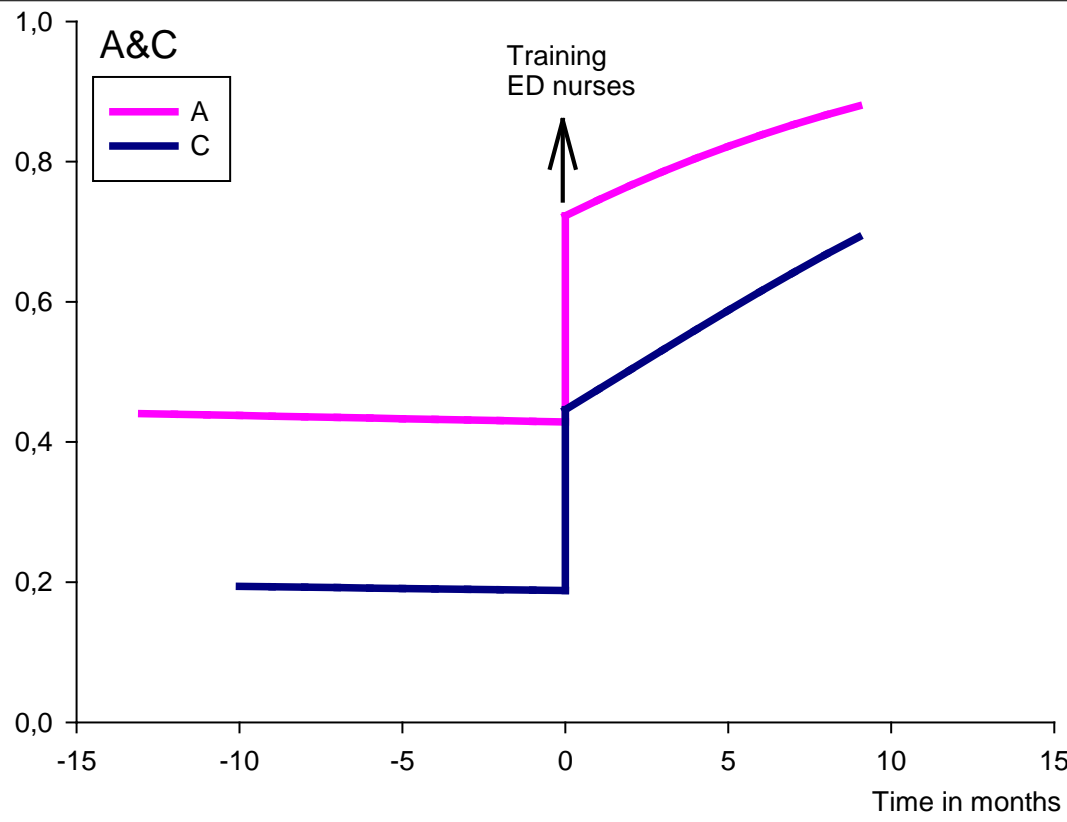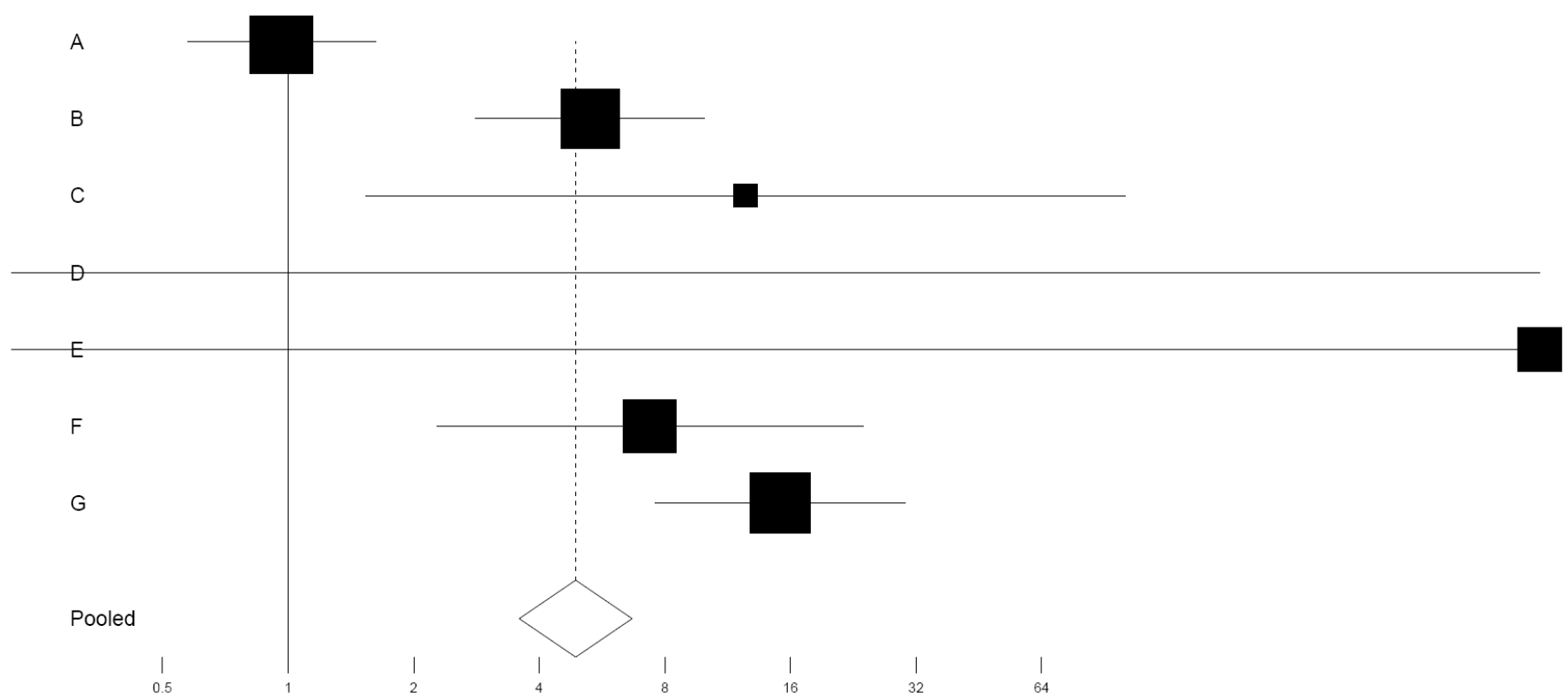
Time in months
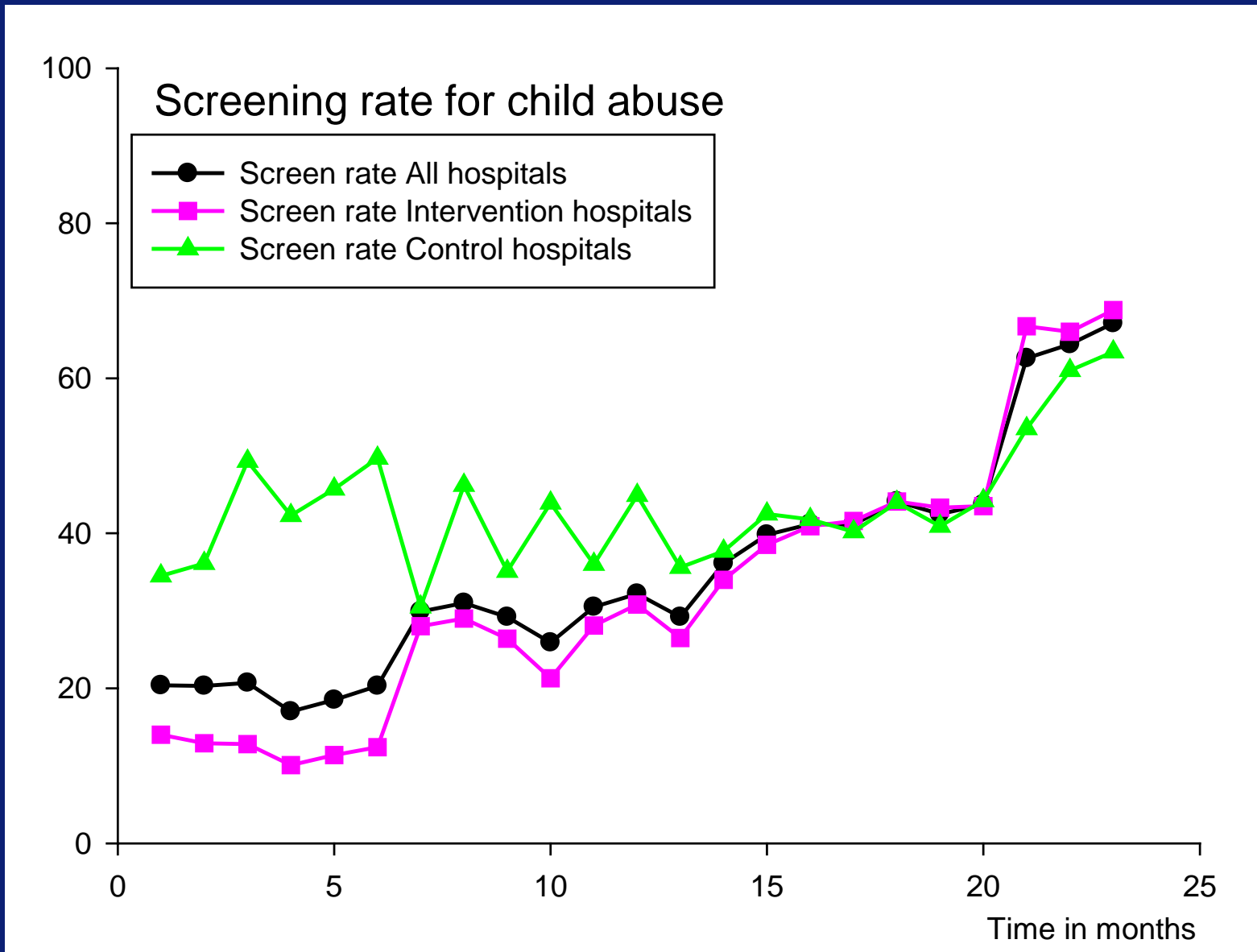
Results training intervention
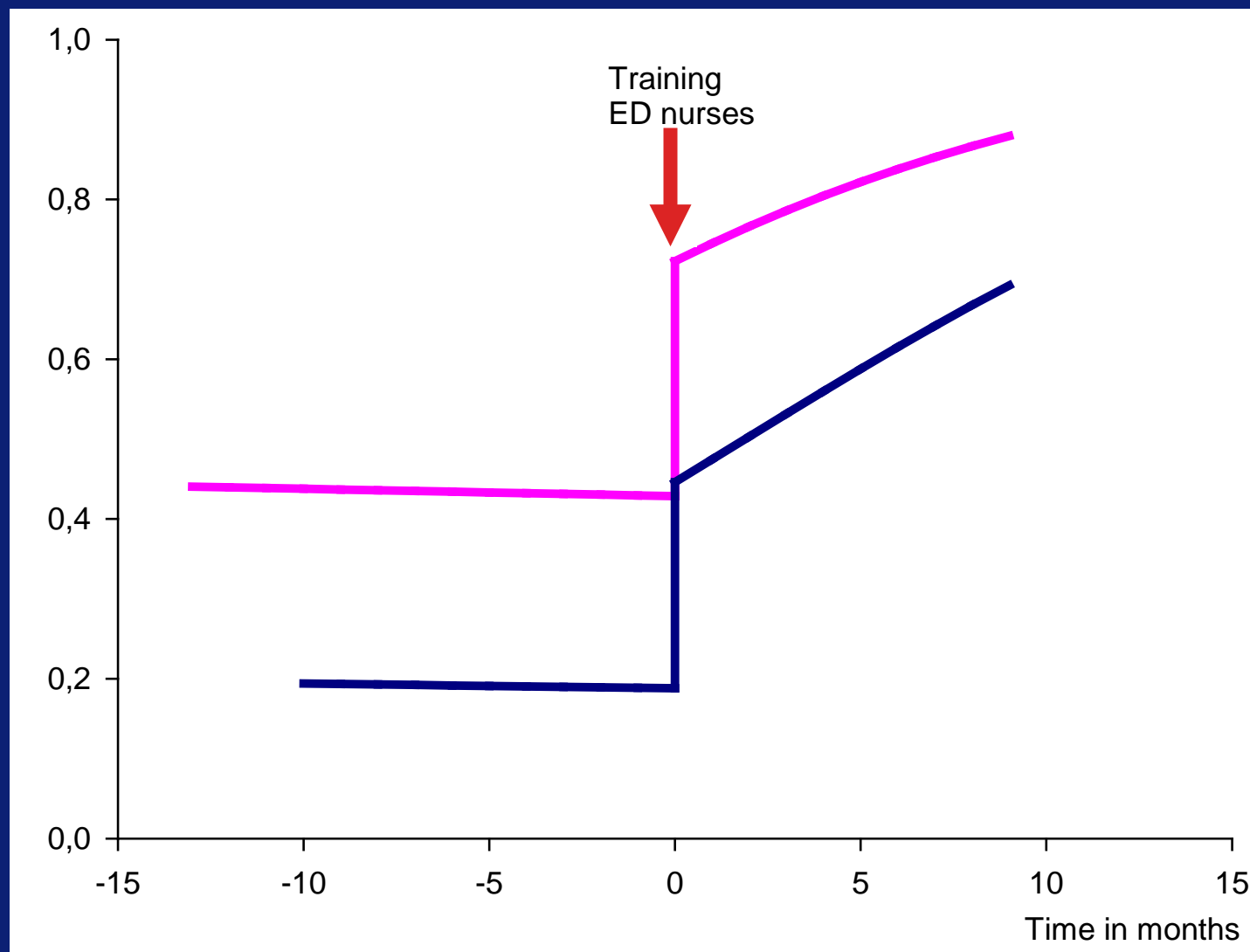
Detection of child abuse

Results on detection of child abuse

Odds ratios for detection of suspected child abuse in screened children

Item of questionnaire	SPUTOVAMO Burn Centre	SPUTOVAMO-R
Injury compatible with history?	✔	✔
History between child and parent/caretaker similar?	✔	
History consistent when repeated?	✔	✔
Actions taken by the parents adequate?	✔	
Delay in ER attendance without satisfactory explanation?	✔	✔
Appropriate behaviour child and interaction between father/mother/child?	✔	✔
Other signals that make you doubt the safety of the child or family members?	✔	
Injury corresponding with age/developmental level of child?		✔
Head to toe examination suspect/in accordance with history?		✔
Unexplained (other) injury in history?		✔

Table A1 – SPUTOVAMO questionnaire used in the burn centre Rotterdam and the SPUTOVAMO-R questionnaire.

Burn center
Sensitivity 73%
Specificity 95%

GP out of office
Sensitivity 15%
Specificity 98%

"It is easier to build strong children than to repair broken man"
Frederick Douglass

Conclusions

- The ESCAPE instrument is valid, with a high sensitivity and specificity

- The screening rate increased after implementing of training for ED nurses

- National obligation to screen at the ED improve the screening rate

- Screening is effective to detect child abuse in an early stage

Acknowledgements

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- Haga ziekenhuis
- Reinier de Graaf Groep
- Albert Schweitzer ziekenhuis
- Rivas Zorggroep
- IJsselland ziekenhuis
- ErasmusMC Sophia Children's Hospital