

Issues around care how to manage life after a road crash ?

Why ESPARR ?

(Étude et Suivi d'une Population
d'Accidentés de la Route dans le Rhône)



Hôpitaux de Lyon

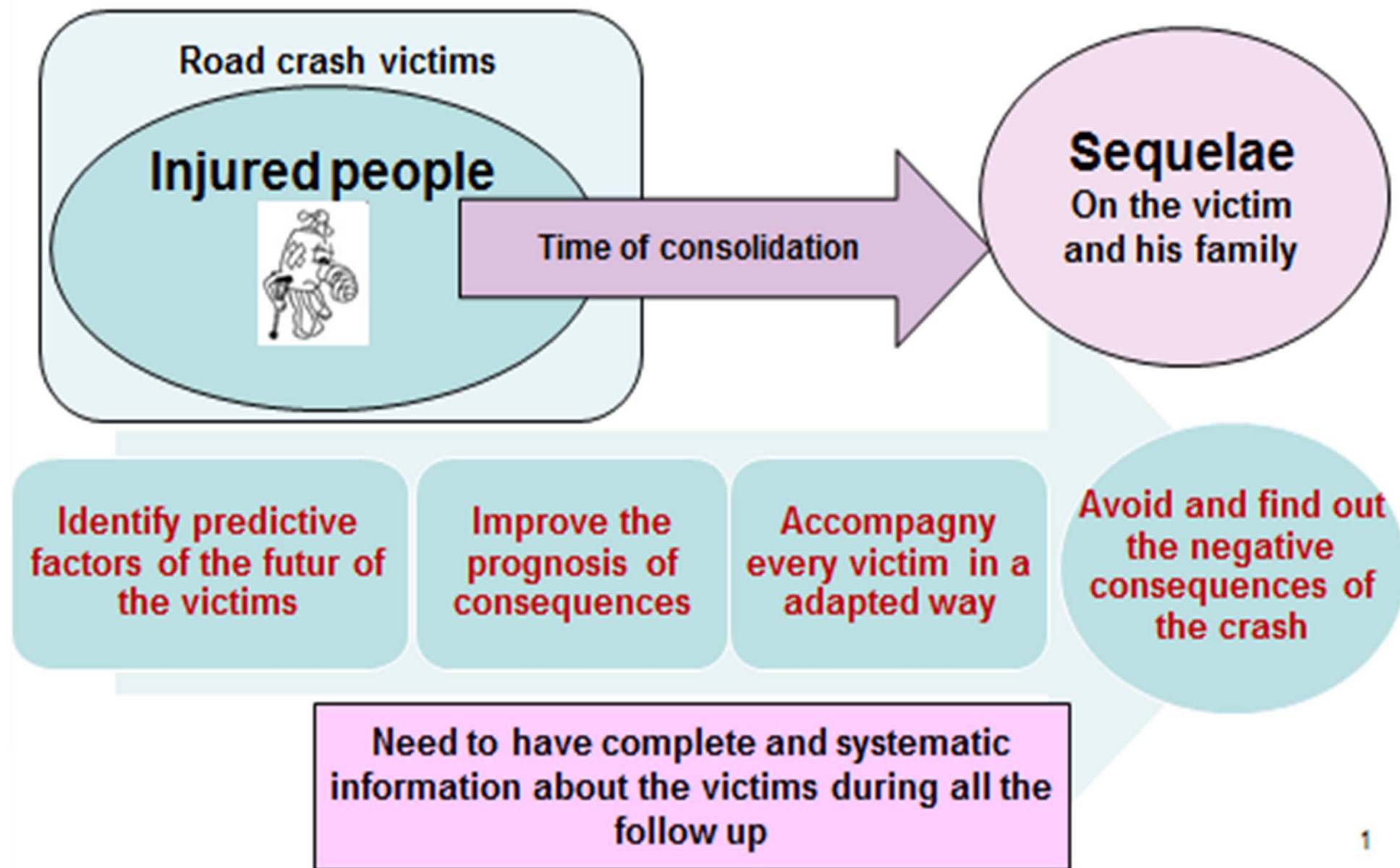


Grants from

- The French minister for equipment and transport (PREDIT 3)
- The French minister for health (PHRC 2003-2005)
- The National Agency for Research (ANR) (PREDIT 4)



Why our interest in the consequences resulting from a trauma caused by a road accident?



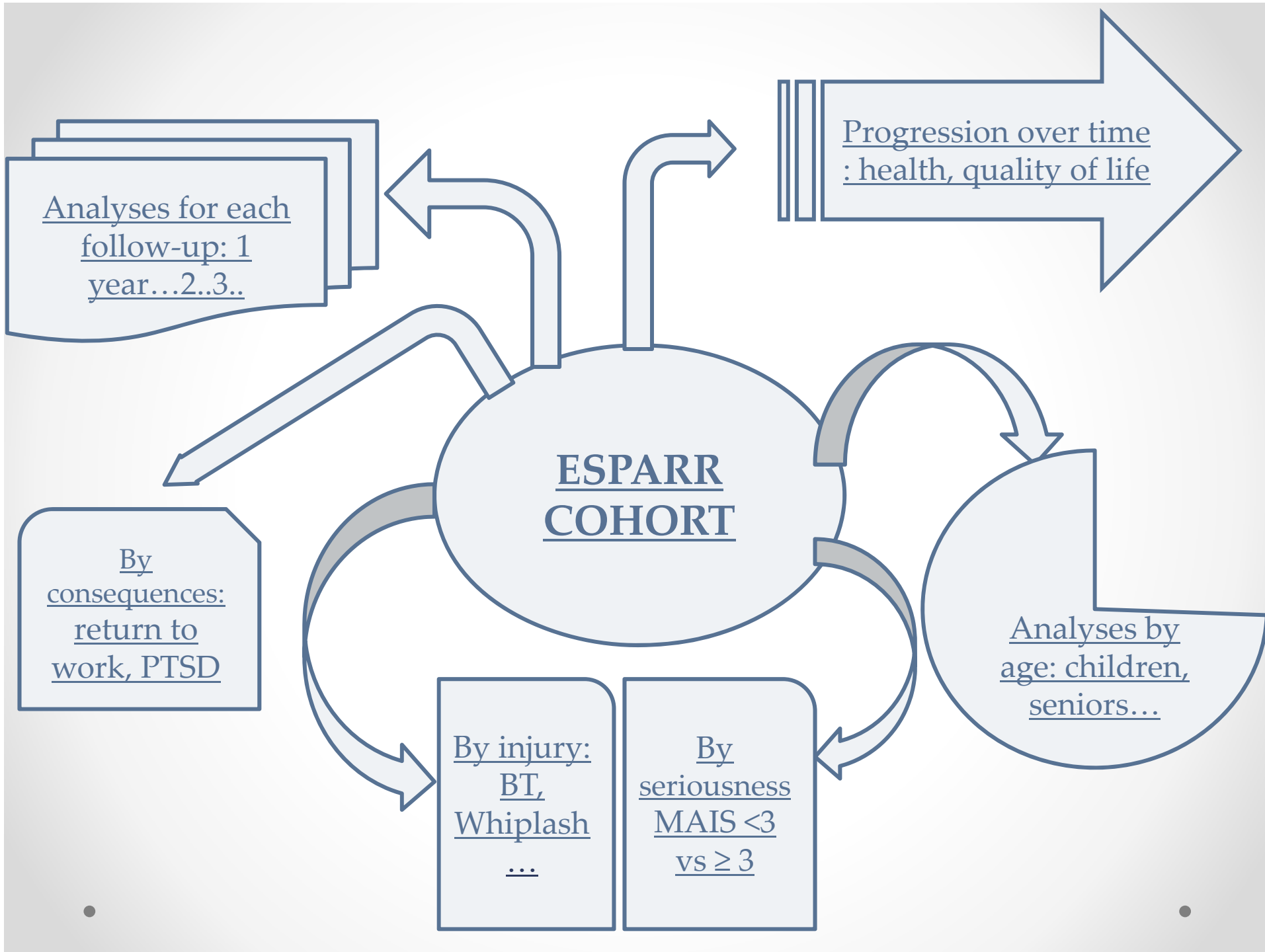
A prospective cohort of road crash victims

- Based on systematic inclusion
- Using validated tools and measurements
- Exploring all aspects of physical, mental, social, familial, occupational consequences
- Representative of the casualties observed in the Rhône *département* (registered in the ARVAC Registry) (however the sampling scheme favours the seriously injured people)



The ESPARR Cohort

- **Objectives** : to assess the consequences of road crashes at a short and mid-term (functional independence, familial -, social -, occupational -, financial consequences)
- **Population** :
 - between October 1st. 2004 and December 31th 2005
 - 1372 victims of road crashes in the Rhône administrative
 - 1168 adults (16 years +) and 134 children (<16 y)
 - 1020 Sujets M-AIS <3 (1/10 Registre)
 - 352 Sujets M-AIS ≥ 3 (43% Registre)
- **Follow-up** six months, one year, two, three, five years after the accident :
 - Self-administered questionnaire or face to face interview for the most seriously injured people
 - Cognitive and medical examination for a sub-group of the cohort



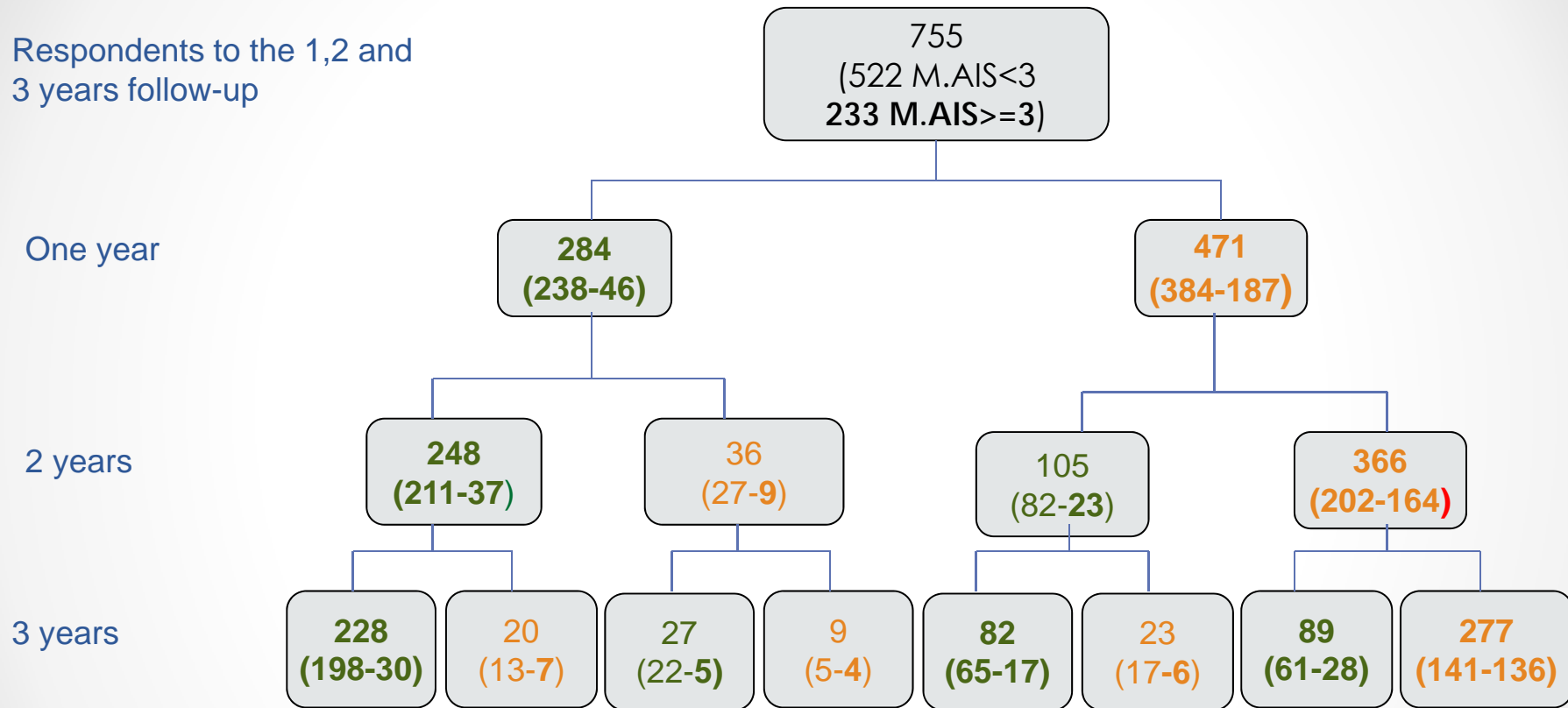
Some examples

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Evolution of the subjective health....

Respondents to the 1,2 and 3 years follow-up



*43% whose health is not recovered at 3 years
(half of the severe causalities).*

Good health recovery
Health not recovered

Sequellae at one year

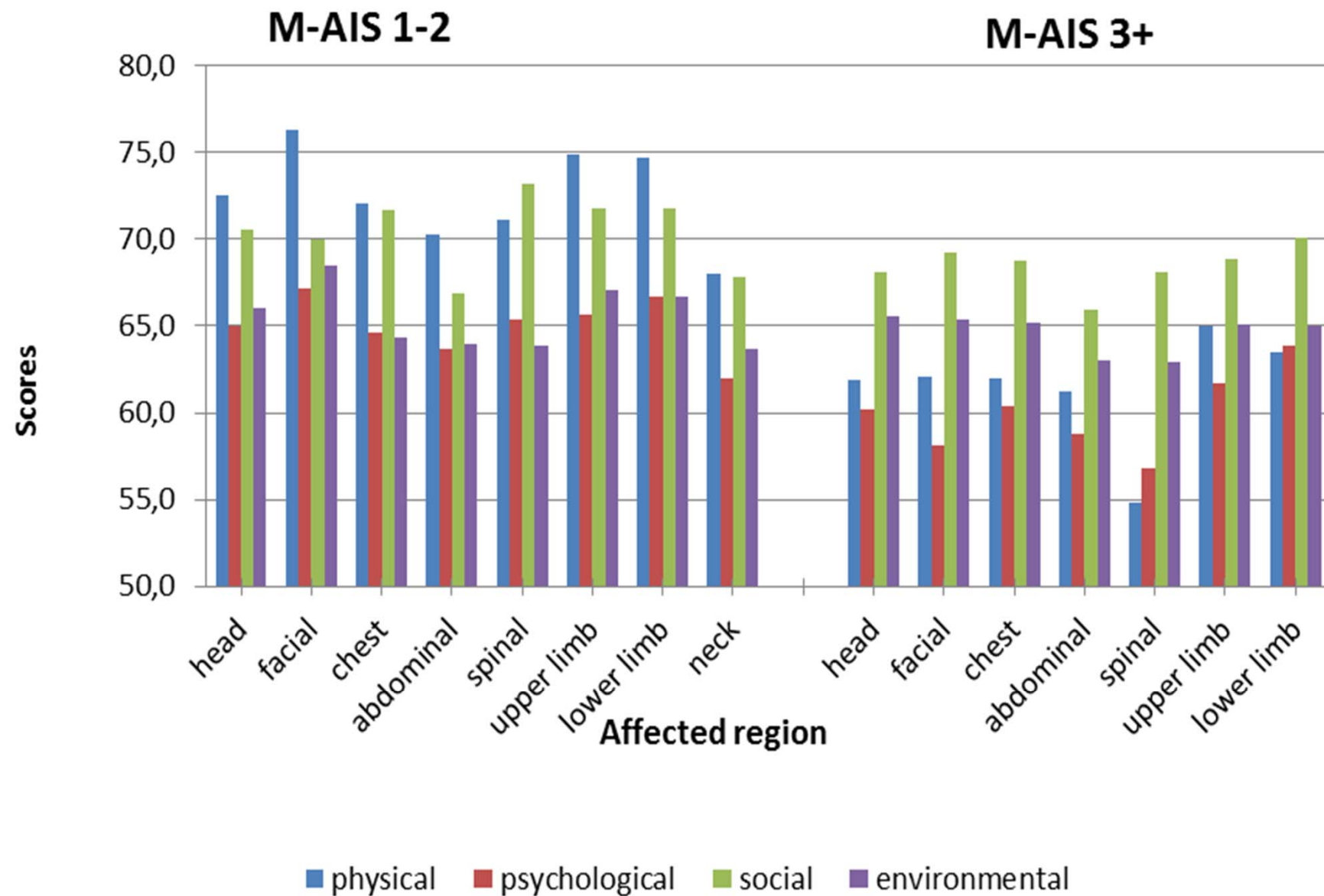
- **Sequellae:**
 - 89 % NISS16+
 - 76 % NISS9-15
 - 47 % NISS<9
- **Disabilities**
 - In the daily life or occupational life (10%)
 - Esthetical : 23 à 31%
 - Cognitive : 1 to 6%
 - Memory troubles(40% NISS16+)
 - Attention troubles (30% NISS16+)
 - paraplegia : 5 cases
- 10,6 % of severe casualties are already recognized as disabled workers (1% -mild- and 5%-moderate)
- The affective life is disrupted (# 45% NISS 9-15 and 16+)

Post-traumatic stress Syndrom

- **At six month after the accident, 18% suffered from PTSD**
 - 13% of MAIS1-2 suffered from PTSD
 - 30% of MAIS3+
 - Approximately 1000 persons by year in the Rhône département
- **16% ever suffering from PTSD one year after the accident**



Quality of life at one year (WhoQol-Bref)



Occupational consequences

- **Immediate consequence: sick leave**
 - MAIS1-2: median =30 days (3^equartile : 90 days)
 - MAIS3+: médiane = 227 days (3^equartile : 375 days)
 - **A close person needs to modify his/her work**
 - MAIS1-2: 5,8%
 - MAIS3+: 7,6%
- 👉 **Immediate financial consequences as well as over the long haul**

Occupational consequences at one year (subjects 16 - 65 years old)

MAIS1-2

MAIS3+

When subjects were working at the time of accident

- | | | |
|----------------------------|---------------|---------|
| • Have lost their job | • <u>4,5%</u> | • 8% |
| • Are looking for job | • <u>8%</u> | • 9% |
| • Are always in sick leave | • <u>2,2%</u> | • 27,7% |

When subjects were not working at the time of accident

- | | | |
|---------------------------|--------------|-------------|
| • <u>Have found a job</u> | • <u>27%</u> | • <u>8%</u> |
|---------------------------|--------------|-------------|

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Severe injuries (AIS 4-5)... and the familial caregivers...(3 years)

	All familial caregivers	« principal caregiver »
Health problems	1/3 (33%) have health problems related to the accident	46%
Familial problems	31% have familial or affective disruption	44%
Social life	33% consider « their social » life as modified	40%
Occupational life	9% have to change some job conditions (week duration, job lost...)	12%
Burden (Zaritt)	14% shows a severe burden with the Zaritt Scale	20%

In the future...

- **A question to be solved**
 - How to predict at the moment of the accident, the seriousness of the consequences ? Are they only related to the immediate seriousness of the injuries (AIS)
- **IIS (injury Impairment scale)** is currently used but it does not predict all the dimensions of the consequences
- **A new indicator (the FCI)** was built in the view of better predicted consequences, but very few validation studies have been done
 - One of our objectives is to validate the FCI from the ESPARR data





ESPARR

Etude de Suivi d'une Population d'Accidentés de la Route dans le Rhône

Thank you for your attention

<http://esparr.inrets.fr/>

<http://esparr2011.ifsttar.fr/>