### EVALUATION OF THE PSYCHOPATHOLOGICAL FACTORS INVOLVED IN RISK DRIVING AND ROAD ACCIDENTS

VI International Conference on European Traffic Policies Barcelona, 16 May 2014



Miquel Casas y Sergi Valero Vall d'Hebron University Hospital Clinical Group connected to the CIBERSAM Barcelona Autonomous University





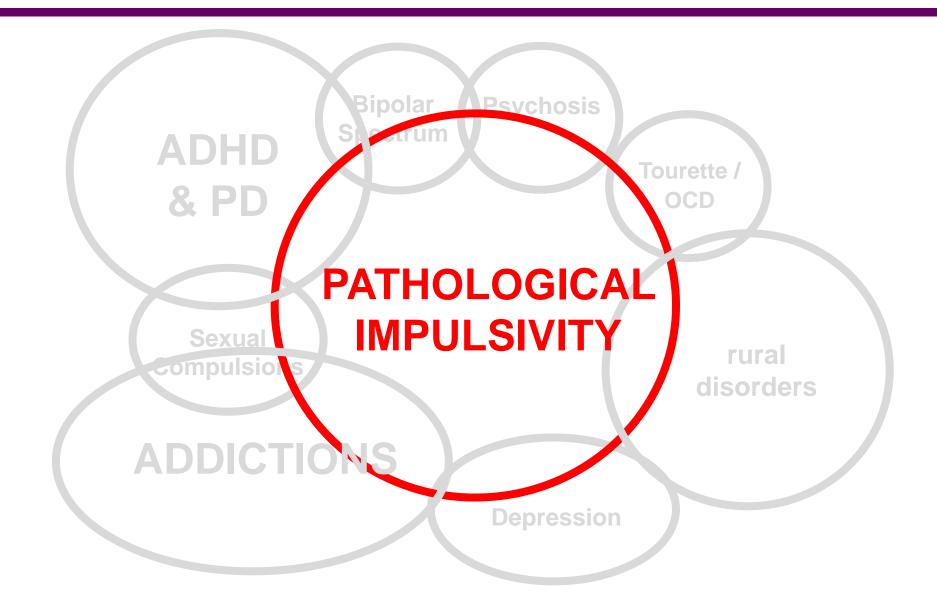
#### **Psychiatry Service**

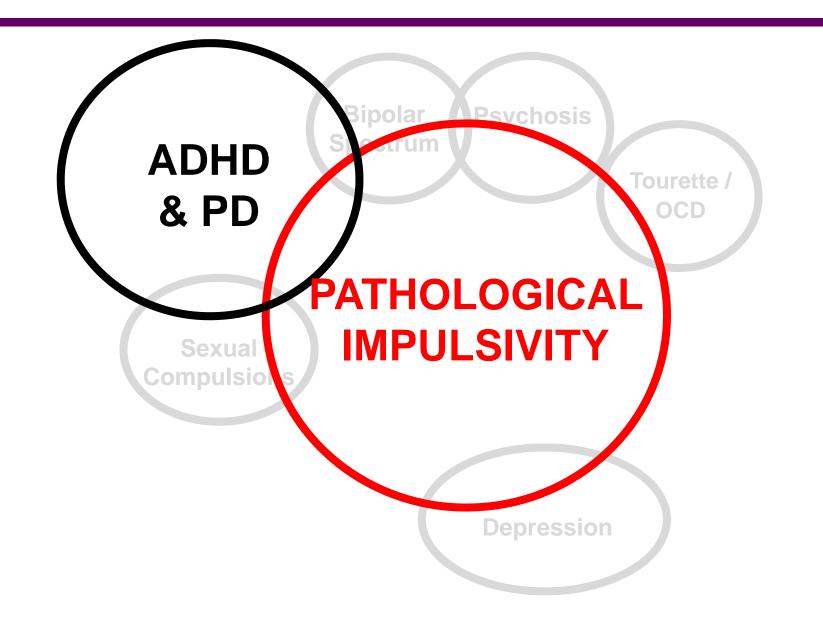
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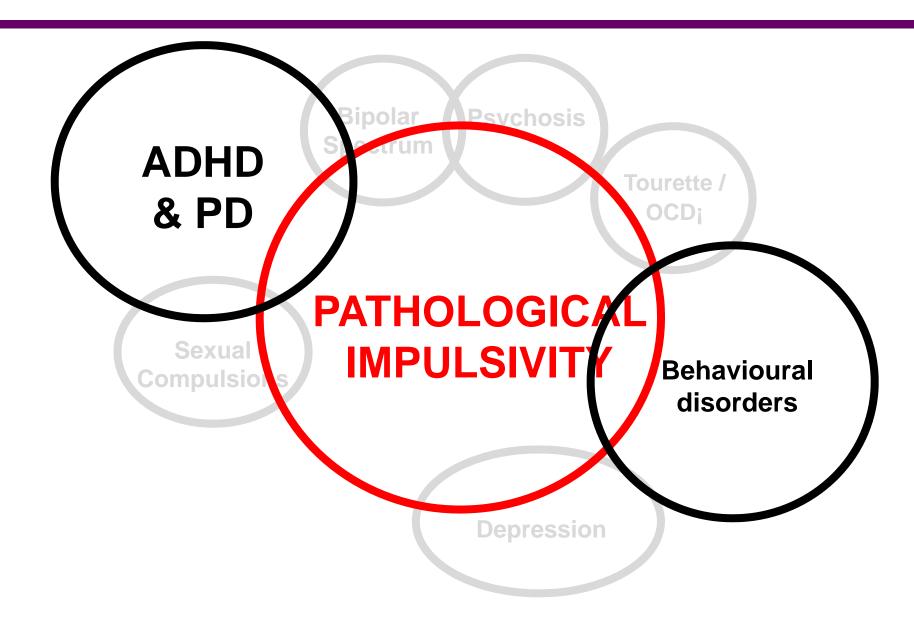


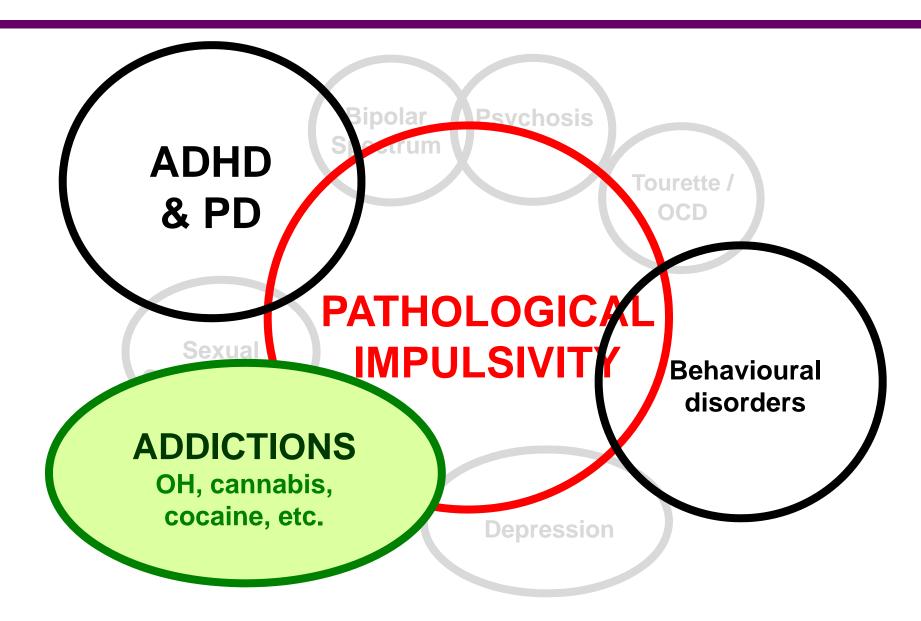
Universitat Autònoma de Barcelona











"Neither too much": • Family conflicts

### **\*Neither too much":** • Family conflicts• Problems

#### "Neither too much": • Family conflicts

- Problems
- Personal dissatisfaction

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• etc.

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"Nor too little":

School failure

- "Neither too much": Family conflicts
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- Teenage violence

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- School failure
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#### LAVANGUARDIA.COM Vida

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### Las distracciones al volante causan 650 muertes al año

Son la primera causa de siniestralidad en las carreteras, según un estudio del RACE

Vida | 29/05/2013 - 17:15h | Ú tima actualización: 29/05/2013 - 21:10h



Madrid. (Efe).- Las distracciones, entre ellas fumar, chatear con el WhatsApp y manejar el teléfono móvil, son la primera causa de siniestralidad en las carreteras, están presentes en uno de cada dos accidentes mortales y provocan 650 fallecimientos al año.

### EL PAÍS ARCHIVO

SÁBADO, 5 de junio de 2010

### El 33% de los reincidentes tarda solo seis meses en tener otro accidente

Los siniestros más graves, los de varones entre 40 y 50 años

#### ELSA GRANDA | Madrid | 5 JUN 2010

Archivado en: Estadísticas Seguridad vial Accidentes tráfico Tráfico Accidentes Transporte Sucesos



La reincidencia está en el punto de mira de la lucha contra la siniestralidad en las carreteras españolas. Muchos conductores se han mostrado inmunes a las estrictas medidas puestas en marcha en los últimos años. Nada parece hacerles virar su rumbo temerario. Un estudio elaborado por la Fundación Mutua Madrileña con datos de 2007, 2008 y 2009 y una muestra de 1.800.000 conductores no profesionales de toda España da algunas pistas sobre su comportamiento. La principal conclusión es que existe un porcentaje de conductores, que aunque es pequeño supone medio millón de personas, a quienes no les disuaden ni sus propios accidentes.

Actualitat - Opinió Ara TV ara.cat El Dia
<u>Actualitat</u> > <u>Societat</u> > Barcelona Méteo
1 Comentaris Magrada 3 Tweet 14 2+1 0
SEGURETAT
El presos per delictes de trànsit es multipliquen un 150% en sis anys
L'enduriment del Codi Penal del 2007 n'és la causa, i es podria eixamplar amb la

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ALBERT SOLÉ Barcelona | Actualitzada el 30/09/2013 00:00

El 8,2% dels interns a les presons catalanes estan complint penes per delictes contra la seguretat viària. Aquest percentatge podria no semblar tan important si no fos perquè el 2005 les penes de trànsit només suposaven el 2,8% dels reclusos. Aquest augment tan significatiu no vol dir que avui es condueixi pitjor que fa vuit anys. L'explicació es deu al fet que des del 2007 les infraccions de trànsit que fins llavors eren una falta administrativa greu van passar a ser un delicte penal, amb la reforma del Codi Penal que va fer el govem socialista. Les infraccions per velocitat excessiva, per conducció temerària, per conduir sense carnet, amb una taxa d'alcohol excessiva o pel fet de negar-se a passar un control van deixar de ser sancionades només amb una multa elevada i la possible retirada del



#### 2.000 empresonats per delictes de trànsit el 2012

Els ingressos a la presó es disparen per la duresa amb la reincidència.



#### J. G. ALBALAT / Barcelona

Els ingressos a la presó per **delictes de trànsit**, sobretot per conduir sota els efectes de l'alcohol o sense carnet per la pèrdua de punts, han augmentat de forma significativa en els últims anys. La Fiscalia General de l'Estat estima que el 2012 van passar per les presons espanyoles més de 2.000 persones condemnades per aquest tipus de conductes. L'increment "alarmant" de presos està associat, segons aquesta institució, al creixement dels infractors multireincidents, generalment amb problemes d'addicció a l'alcohol o a drogues il·legals. Els ingressos a la **presó** es disparen per la duresa legal amb la reincidència.



Si es té en compte que les penes per alcoholèmia o conduir sense carnet no excedeixen de sis mesos de presó. la fiscalia dedueix que els reclusos complint condemna al gener no són els de desembre i, per tant, la població reclusa acumulada l'any passat "oxeodoix" dols 2.000 proces

#### Jueves, 7 de noviembre 2013 LAVANGUARDIA.COM Vida Ediciones - Quiero - Ten Portada Internacional Política Economía Sucesos Opinión Deportes Vida Tecnología Cut ES Magazine Món Barcelona Ciencia Sanidad Salud Qué estudiar Natural Eficiencia C

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El 77% de los conductores explica que se distrae con los ocupantes del vehículo v

• Attention deficits

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- Difficulty in objective assessment of reality

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- Need to seek situations that are stimulating

• Alcohol and drug use

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- Limited capacity to accept advice or warnings
- Choice of hazardous activities
- Predisposition to scares and accidents particularly at work or when driving





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- Sleep disorders (2%-5%)

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- Alcohol use (>15%)
- Drug use (3%)

**ADDICTIVE BEHAVIOURS** 

# "Hypothesis of abuse"

versus

# "Hypothesis of Self-Medication"

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- etc.

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- As these factors are not identified or evaluated systematically, they become virtually <u>invisible</u>.



• Therefore, they turn into variables for which neither psychopathology <u>detection protocols</u> are designed, nor risk behavior prevention strategies are implemented.









Telenoticies 05/04/2012 0 1.52

#### Awareness courses to reduce traffic accidents



# **AIM OF THE PROJECT**

Detection, diagnosis and treatment of psychopathological disorders that become vulnerabilities for driving and road accidents.



### Phase I. Screening

### PROCEDURE

### Phase I. Screening

### Phase II. Diagnosis

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### Phase I. Screening

### Phase II. Diagnosis

Phase III. Treatment

## **POPULATION OF INTEREST**

Loss of driving license.
 Road Awareness and Re-education
 Courses (RACC)

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Loss of driving license.
 Road Awareness and Re-education
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2. Alternative Penal Measures. Training Courses (ARC and UAB)

3. Imprisonment.

# **HYPOTHESIS**

• ADHD	(4%-5%)
<ul> <li>Behavioural disorders</li> </ul>	(1%-2%)
<ul> <li>Sleep disorders</li> </ul>	(2%-5%)
<ul> <li>Chronic fatigue</li> </ul>	(1%-2%)
<ul> <li>Alcohol problems</li> </ul>	( >15%)
• Drug use	(3%)

### **HYPOTHESIS**



### RESULTS



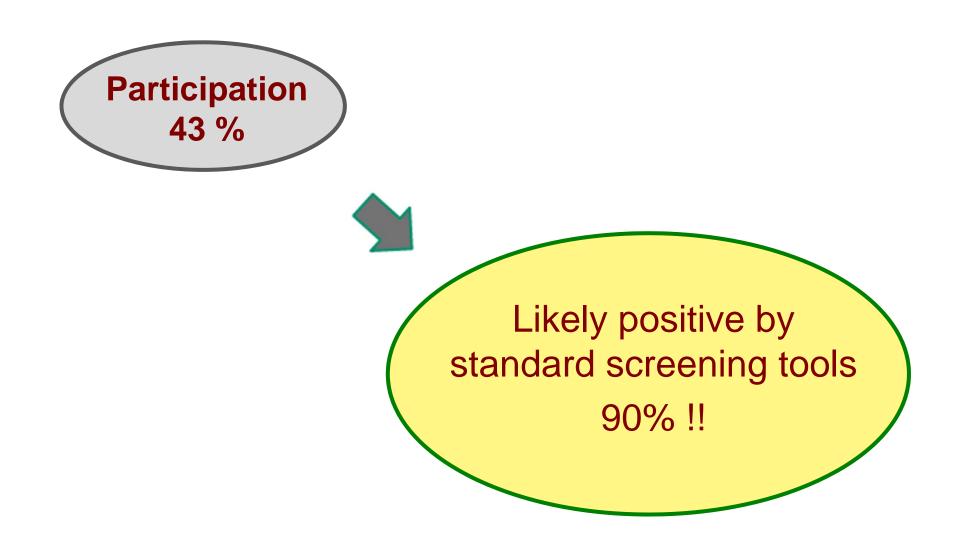
### RESULTS



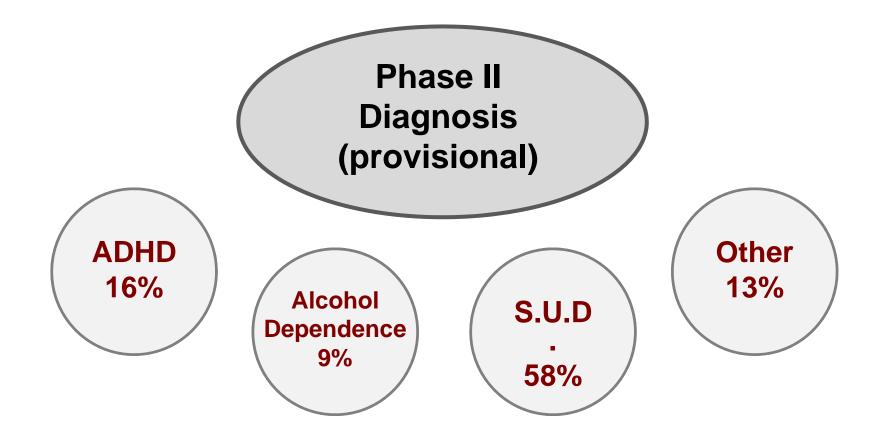




### RESULTS



### **RESULTADOS**



• First screening study of psychopathology among people at risk

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- First screening study of psychopathology among people at risk
- High participation screening
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- Diagnosis in the expected direction
- Monitoring difficulties, low adhesion

- First psychopathology screening study among people at risk
- High participation in screening
- High prevalence of likely positives
- Diagnosis in the expected direction
- Monitoring difficulties, low adhesion
- Proposals ...



## **EVALUATION OF THE PSYCHOPATHOLOGICAL** FACTORS INVOLVED IN RISK **DRIVING AND ROAD ACCIDENTS**

- VI International Conference on European Traffic Policies
- Barcelona, 16 May 2014



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- 2. Increased warnings and penalties for violators (fines, points withdrawn, etc.).
- 3. Identification of risk behaviours (use of mobile phone, safety belt use, alcohol, drugs, etc..).
- 4. Greater emphasis on the knowledge and skills necessary to get the driving license.

5. More rigorous inspections of the drivers' skills and of the vehicles (CVRT, neuropsychological assessments when renewing driver licenses).

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- 6. Detection and solution of structural and management problems of the road network.

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- 6. Detection and solution of structural and management problems of the road network.
- 5. Improving technical and vehicle security features.
- 5. Public awareness, etc.



#### Catalunya // Vallès Oriental

#### Un 30% dels conductors reincideixen en les infraccions després d'haver perdut els punts del carnet

26/09/2013 - 18.00h

Mollet del Vallès (ACN).- Un 30% dels conductors que han fet el curs per recuperar els punts del carnet tornen a cometre la mateixa infracció per la qual van ser sancionats. El director del Servei Català de Trànsit, Joan Josep Isern, ha detallat que es tracta de persones que han anat perdent els punts progressivament o que surten d'una condemna per un delicte contra el trànsit. Per aquest motiu, Trànsit ha iniciat un projecte amb el Departament de psiquiatria de l'Hospital de la Vall d'Hebron per descobrir les "psicopatologies" d'aquest tipus de conductors. Isern, d'altra banda, ha destacat que el grup de menors de 30 anys ha reduit en un 80% la mortalitat a les carreteres en deu anys.





# Más del 60% de los conductores se ven responsables de los accidentes de tráfico

S

E. MONTAÑÉS 🗮 / MADRID 🔰 Dis 07/10/2013 - 16.35h

La misma proporción mejoraría, no obstante, el estado de las carreteras y su señalización. Cuatro de cada diez ciclistas creen que es más peligroso hoy ir en bici que hace diez años y un 3,8% de la población desconoce que hay un carné por puntos



#### **SCHOOL FAILURE**





Generalitat de Catalunya Departament d'Ensenyament



#### **RISK DRIVING**





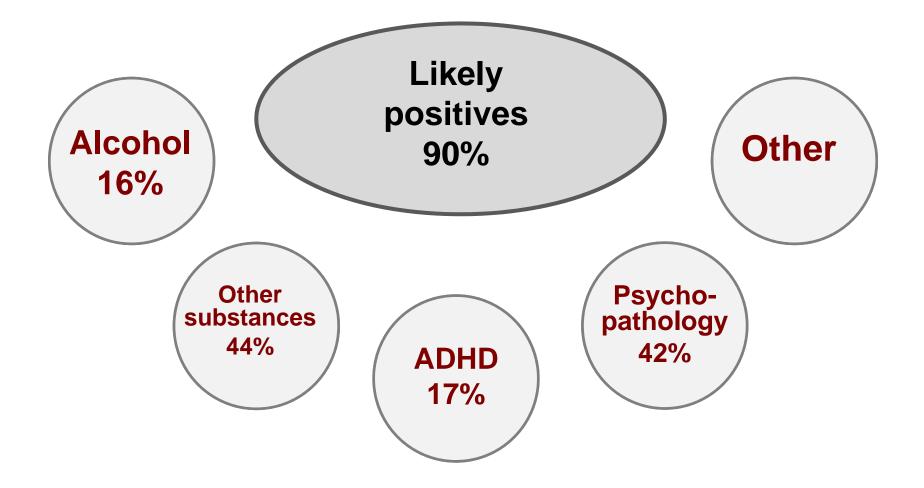




Chair of Mobility and Road Safety. Faculty of Education Sciences



#### RESULTS



#### LIMITATIONS

• A third of people who were considered likely positives in the screening tests cannot be located at the time of diagnosis.

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- A third of people who were considered likely positives in the screening cannot be located at the time of diagnosis.
- A third of those who begin the diagnostic process abandon prematurely.





1. Possibility of implementing <u>voluntary</u> basic psychopathological assessment tests in examinations for obtaining the driving license.



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- 2. Provide <u>voluntary</u> diagnosis and treatment for driving school students who test positive.



- 1. Possibility of implementing <u>voluntary</u> basic psychopathological assessment tests in examinations for obtaining the driving license.
- 2. Provide <u>voluntary</u> diagnosis and treatment for driving school students who test positive.
- 3. Offer <u>voluntary</u> psychopathological screening to all drivers who lose all their points for the first time, only informing the driver of the result and if necessary, advising him to follow a diagnostic process.



4. Proposing the need to follow a <u>mandatory</u> diagnostic process for reoffenders who have lost all their points more than once in road accidents and who want to recover their driving license.

#### PROPOSALS

- 4. Proposing the need to follow a <u>mandatory</u> diagnostic process for reoffenders who have lost all their points more than once in road accidents and who want to recover their driving license.
- 5. Suggesting the need to follow a regulated and <u>mandatory</u> treatment if the diagnostic process shows positive results, for all those reoffenders who have lost all their points more than once in road accidents and want to recover their driving license.



- 4. Proposing the need to follow a <u>mandatory</u> diagnostic process for reoffenders who have lost all their points more than once in road accidents and who want to recover their driving license.
- 5. Suggesting the need to follow a regulated and <u>mandatory</u> treatment if the diagnostic process shows positive results, for all those reoffenders who have lost all their points more than once in road accidents and want to recover their driving license.
- 6. Possibility of offering diagnostic and treatment processes, as part of complying with the alternative penal measures, to those offenders who have been sentenced to prison for traffic problems.

#### PARTICIPANTS

#### **RACC**

Míriam Monfort Vicky Novell Víctor Nadal Jaime Gómez Amor Cárdenas Javier Figueras

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Josep Muntané Mercè Jariot Màrius Martínez Montserrat Rodríguez Sebastià Sánchez Laura Arnau Adrià Pagès