INTRODUCTION

In the Netherlands, as in a number of other countries, drunk-driving is a serious problem. Research has demonstrated that in 1985 185 (=14%) deaths and 3585 (=9%) instances of serious injuries occur which are directly attributable to alcohol use while driving (1). In the last fifteen years, both private organizations and governmental agencies have intensified activities aimed at combatting this problem. One effect of these efforts has been that public opinion is presently sharply censorious of drunken driving: more than 90% of the Dutch population considers it to be an important problem (2). This disapproval does not, however, prevent a portion of that same population from getting behind the wheel after they have been drinking. During a weekend, for example, one out of eight drivers is drunken (blood-alcohol level >0,5 mg. per ml.blood). After 1:00 a.m., one driver in five is drunken (3). Judicial measures have not as a rule had the desired effect. In 1983 47.8% of the convictions for infringing sections 26 and 33 a-3 of the Road Traffic Act* are attributable to repeated offenders (4). This high recidivism figure provided an inducement for the Dutch Justice Minister to begin drink-driving projects. The goal of such projects was to reduce recidivism by means of direct information campaigns aimed at convicted drunken drivers.

In 1979, a drink-driving project was begun in "De Raam" prison in Grave, and in 1985 a similar project was begun outside the prison in the district Assen. Both of these projects, as well as their results, are discussed below.

DRINK-DRIVING PROJECT GRAVE

The "De Raam" prison has played a central role in the detention of convicted drunk drivers since 1976. At present, 80% of the population of this prison consists of convicted drunken drivers. Research has shown that these drivers possess very little knowledge in the area of alcohol and its effect upon driving; partly as a result of this lack of knowledge, they tend to seriously underestimate the risks involved in drinking and driving (see also drink-driving project Assen).

At the end of 1979, an information program was started in "De Raam" prison. The program's goal was, on the one hand, to effect a reduction of the repetition of drunk-driving offences, and on the other hand, to achieve a more meaningful detention period. These goals were to be achieved in a three-day course, specifi-

* Section 26 RTA: driving while intoxicated
Section 33 a-3 RTA: refusal to provide a blood sample
cally formulated goals were:
1. Expansion of knowledge concerning the risks attached to the use of alcohol, and in particular, the effects of alcohol consumption on driving skill;
2. Expansion of knowledge of the social and political consequences of (repeated) convictions for drunk-driving;
3. Expansion of knowledge of the possibilities which exist for seeking help with alcohol-related problems;
4. Increased awareness of one's own conceptions and norms relating to alcohol use, and to driving after consuming alcohol.

Expert speakers from the medical sector, from the police, the public prosecutor's office and other branches of the judiciary, as well as from relief agencies set out in considerable the medical aspects of alcohol use in traffic, the influence of alcohol on driving skill, the victims of alcohol on roads and highways, alcohol related problems and relief agencies. The course participants are provided ample opportunity to enter into discussions with the speakers concerning the proffered information, with the aim of stimulating the formation of opinions.

Although there are reservations in guidance circles about the expectation that more knowledge and changed opinions automatically result in changes in behavior, this drink-driving project does appear to have been successful in this area in reducing recidivism rates (see "RESULTS"). At the same time, course participants experience their detention as having been more useful than do prisoners in a similar prison: 32% versus 14% (5).

DRINK-DRIVING PROJECT ASSEN

The success of the drink-driving project in Grave was an inducement to a number of organizations in the district Assen for starting a drink-driving project outside the prison; of course another factor which played a role was the grave concern which existed concerning the high rate of recidivism among drunk drivers. Three organizations are involved in this project: the Public Prosecutor's Office, the Parole Board (prisoners aid) and the Consultation Bureau for Alcohol and Drugs in the district Assen. This unique project is (still) in an experimental phase, and is being financed by the Justice Ministry. As in the Grave project, an investigation is also being done here into the effect which attending such a program has upon recidivism. The goals and the content of this project are virtually identical to those of "Grave". The difference is that the Assen project takes the form of a two-day course, which is offered as an alternative sentence, rather than a way to fill in a period of detention.

Only a specific category of drunk drivers in the district are eligible for the course: those with a blood alcohol level which is higher than 1.3 mg. per ml. (for a recidivist, 0.71 mg. per ml.). In addition, the drunk driver must not have been the cause of an accident involving injuries to persons, and he must have indicated to the judge sentencing him that he would like to be considered eligible for the course. If the judge finds the suspect guilty, he can sentence him within the framework of special condition- to participation in the course. This participation replaces about one-third of the regular sentence for the convicted drunken driver. Because the investigation of the effects of the program upon recidivism under drunk drivers is still under way, the only report which can be made concerns short-term effects of the course.
THE RESEARCH: METHODOLOGICAL CONSIDERATIONS.

The eventual success of such programs is determined by the possibility of a change of behavior with regard to driving while intoxicated. In order to measure this it is usual to compare the experimental group on several instances with a comparable control group, one that differs from the experimental group only insofar as that it is not subject to the program under evaluation. According to us many studies in the past on this subject have failed because of the absence of an adequate control group or of a control group at all. For example many German studies make use of a control group by using results from a study of the Dutchman Buikhuisen he carried out in the early seventies. One has to realize then that one is talking about another period and about a different country (with own prosecuting rates etc.).

In researching the program in Grave there has been making use of a comparable group from the prison Nieuw Bergveen, which is similar to the one in Grave. Some 70% of the population in both prisons have been sentenced for violations of section 26 of the RTA. Drunken drivers in the so-called control prison were informed on the first day of their imprisonment about the existing and the content of the education program in Grave. After this short information talk they were asked whether they would have joined this program if they had been detained in Grave. The so-called volunteers were asked to join the evaluation study. Under 1 percent refused to do this. I think you can explain such a high responding rate by keeping in mind that a little chat with an interviewer can mean a pleasant break for prisoners in such a hard and dull situation.

During the detention both of the groups were pretested twice: at the first day of their detention and after one week. The post test followed one year later by visiting them at home.

The control group for the D.D.-Project in Assen consists of a comparable group in another court district. This group has been recruited by asking offenders of the RTA before their appearing in court (this means before getting into the courtroom) if they were likely to join the evaluation study. Some 40% refused this. At the end of the study we will compare the refusers and non-refusers on available data as: registered recidivism rates, criminal history, BAC, age and sex.

But from the point of view of eventual program-effectiveness one can imagine that an eventual bias in this control group will probably lead to the conclusion that there isn't any effect or maybe a smaller effect than deserved. It is not impossible that a control group that is more likely to participate voluntarily in the study will show a more positive behavior than the refuse-group at all, which maybe leads to lower recidivism rates. It means that an eventual success of the program in Assen will not be due to the use of a selective control group.

There are several ways to determine the extent of recidivism in the groups in the evaluation studies:

1. The most reliable information could be get from keeping the people concerned in the eye for some time. Even disregarding the ethical objections, this wouldn't be feasible.
2. The method most frequently used in evaluating such projects is the investigation of the official records in which convictions and accidents are registered. In our view however this method is not suitable for such an evaluation study.

Starting with the accidents:
The Netherlands are much smaller than other countries in which these programs exist. And so the area for which a program as the D.D.-Project in Assen is meant, is coorrespondingly small: it has fewer than half a million inhabitants. This means that the chance of finding a possible effect of such a program in a reduction of accidents will be vary small indeed.

Concerning the convictions:
Firstly one gets an incomplete image of the effect of such programs because of the vast dark number of offences of the RTA. As we will see below ("RESULTS") the registered recidivism in the Grave-research is ¼ the amount of self-registered recidivism. Furthermore the numbers are very small to draw conclusions from.

Secondly the developing image could be a distorted one. The amount of registered recidivism is totally dependent upon police-activities. These can vary in intensity and method because of the wide regional differences in priorities and available manpower. In the research on both the Grave project and the Assen project the control group used is from another part of the country. Possible effects of these programs on individuals of the control groups are thus avoided. The enforcement policies of the police in these different parts of the country however will vary.

Thirdly there is the possibility that the group of recidivists will consist largely of people with a crime history on drunk driving. The Grave-research did in fact show (although weak) a correlation between crime history on drunk driving and registered recidivism (as we can see in Table 1). This means that the individuals with a crime history on drunk driving have certain aspects in common which enlarge their chances of being apprehended. One can think in this connection of the quality of the car, the frequency of drunk driving, the time of the day they drive while intoxicated, and the fact that the police may know certain drivers or cars.

3. Because of the above-mentioned objections it is better to use a third method: measuring the effect of the D.D.-Projects by using the self-reportde recidivism-rates. The reliability of these data can be checked, not only against the registered recidivism, but also by interviewing the partners (husbands, wives, parents or other housemates) and by asking other sensitive questions (about their consumption of alcohol and about their driving with a suspended licence).

For example in the evaluation study on the program in Grave 38 % of the experimental group admitted driving with a suspended licence comparing with 31 % of the control group. Why should more people in the experimental group admit such a serious crime and hide information about drunk driving?

Conclusion: using self-reported data in measuring the effect of the D.D.-Projects means a more time-consuming research, but its value will improve, especially in a situation we find in the Netherlands.
RESULTS

The D.D.-Project_in prison "DE Raam"_Grave.

As we can see in Table 2 after 18 months the recidivism according to official records is lower for the experimental group than for the control group. According to the self-reported recidivism rates this is not due to the fact of eventual more intensified policies of the police in the control area (Table 3). Afterwards both results were combined; this means we added the 'liers' to the group of self-reported recidivists. The result is Table 4, the known recidivism rate. As we can see, after 14 months the repeated offense figures for the course participants were 17% lower than the figures for the control group (statistical significant on .05).

The conclusion seems to be justified that this D.D.-Project does indeed help to reduce the numbers of repeated offenders.

The D.D.-Project in the district Assen.

The evaluation study of this program will be closed in the middle of 1987, so we can present only short-term effects of the course. Most of the participants in the course in Assen consider it to be an (extremely) useful way of filling in their sentence; this positive attitude towards the course undoubtedly also contributes to the considerable augmentation of knowledge which was measured (+75%). Prior to the course, 18% of the participants passed an alcohol-traffic test, and following the course, 86% of them passed a similar test (6).

Making use of a validated alcohol test, the researchers determined that 38% of the course participants belongs to a group labeled as "problem-drinkers" (excessive drinkers and alcohol addicts). Shortly following the end of the course, 15% of this group of problem drinkers sought help for their drinking problems by the Consultation Bureau for Alcohol and Drugs or the AA. When we realize that a number (11.3%) of the remaining problem drinkers had already sought help before beginning the course, this 15% figure begins to look more impressive. This is thus the first important effect of the course involving behavioral change. It is all the more remarkable considering that - in contrast to several American equivalents - this course is not explicitly directed towards stimulating participants to seek help by approaching relief agencies (7).

CONCLUSION.

Although the project in Grave has booked good results, and the project in Assen seems to justify considerable optimism, those involved remain realistic concerning these secondary-prevention projects. Combatting the problem of drunk driving remains a long-term affair in which constant efforts must be made to find new avenues of approach. The D.D.-Project can make a valuable contribution in this struggle - but can only be successful in concert with other approaches.
Table 1
A. SELF-REPORTED DWI (14 months)

<table>
<thead>
<tr>
<th></th>
<th>first offenders</th>
<th>recidivists</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>non-recidivists</td>
<td>70 (55%)</td>
<td>15 (60%)</td>
<td>85</td>
</tr>
<tr>
<td>recidivists</td>
<td>57 (45%)</td>
<td>10 (40%)</td>
<td>67</td>
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\[ \chi^2 = .19 \text{ n.s.} \]

B. REGISTERED DWI (18 months)

<table>
<thead>
<tr>
<th></th>
<th>first offenders</th>
<th>recidivists</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>non-recidivists</td>
<td>213 (91%)</td>
<td>37 (75.5%)</td>
<td>250</td>
</tr>
<tr>
<td>recidivists</td>
<td>21 (9%)</td>
<td>12 (24.5%)</td>
<td>33</td>
</tr>
</tbody>
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\[ \chi^2 = 9.53 \quad p \leq .01 \]

Table 2
Recidivism after 18 months according to official records

<table>
<thead>
<tr>
<th></th>
<th>experimental group (165)</th>
<th>control group (118)</th>
</tr>
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<tbody>
<tr>
<td>recidivists</td>
<td>16 (9.7%)</td>
<td>17 (14.4%)</td>
</tr>
<tr>
<td>non-recidivists</td>
<td>149 (90.3%)</td>
<td>101 (85.6%)</td>
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Table 3
Self-reported recidivism after 14 months

<table>
<thead>
<tr>
<th></th>
<th>experimental group (91)</th>
<th>control group (62)</th>
</tr>
</thead>
<tbody>
<tr>
<td>recidivists</td>
<td>35 (38.5%)</td>
<td>32 (51.6%)</td>
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<tr>
<td>non-recidivists</td>
<td>56 (61.5%)</td>
<td>30 (48.4%)</td>
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Table 4
Known recidivism after 14 months

<table>
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<th>experimental group (91)</th>
<th>control group (62)</th>
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</thead>
<tbody>
<tr>
<td>recidivists</td>
<td>37 (40.7%)</td>
<td>36 (58.1%)</td>
</tr>
<tr>
<td>non-recidivists</td>
<td>54 (59.3%)</td>
<td>26 (41.0%)</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 4.45 \quad p \leq .05 \]
REFERENCES