

# SUMMARY

English summary of Brå report No 2009:5

## Evaluation of the K-model (The Kronoberg Model)

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brottsförebyggande rådet

# Evaluation of the K-model (The Kronoberg Model)

**A summary of the report 2009:5**

**The Swedish National Council for Crime Prevention (Brottsförebyggande rådet, Brå) – centre for knowledge about crime and crime prevention measures.**

The Swedish National Council for Crime Prevention works to reduce crime and improve levels of safety in society by producing data and disseminating knowledge on crime and crime prevention work.

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# Evaluation of the K-model (The Kronoberg Model)

The K-model is a working model used by the police that aims to prevent young people from drinking alcohol in public places and, as an extension to this, to contribute towards reducing juvenile violence in these environments. The model was developed by the police in Kronoberg County (hence The K-model), which is one of Sweden's 21 Counties and also one of the 21 County Police Authorities.

The police's own experiences and follow-ups of the model indicated that it was both possible to manage in a good way and had the capacity to reduce juvenile violence. On the basis of these experiences, the Swedish National Council for Crime Prevention and the Swedish National Police Board decided to test and evaluate the model.

Instead of evaluating individual ongoing trials using the model, all 21 County Police Authorities were invited to take part in a large trial in which local police districts would work using the model on the basis of a kind of protocol. The police districts were also offered training and other support for this work. One requirement for taking part in the trial was that the police in the districts had not previously working in accordance with the K-model or in a similar manner. This invitation led to the police in seven districts in six County Police Authorities working in accordance with the method for a period each, varying between four and seven months, in 2008. The districts selected to take part were: Piteå, Sundsvall, Enköping/Håbo, Nacka, Skärholmen, Karlstad and Gotland.

The districts in which the police chose to take part differ in size and character. Two of the districts are medium-sized Swedish cities with about 95,000 (Sundsvall) and 83,000 (Karlstad) inhabitants respectively. Two of the districts are suburbs of the capital city, Stockholm, with about 120,000 (Skärholmen) and 84,000 (Nacka) inhabitants respectively. The other four districts (Håbo, Enköping, Piteå and Gotland) consist of a smaller town with a surrounding sparsely populated rural area with a total population of between about 57,000 and 19,000 inhabitants. The percentage of young people in the target group of 13 to 19 years of age in all districts is about 9 percent of the entire population, which means almost 50,000 young people in total.

## The content of the K-model

The K-model consists of two components. Measures to counteract the *demand* for alcohol and measures to reduce the *availability* of alcohol among young people.<sup>1</sup> The first component involves the police (partly in cooperation with the social services) actively and systematically employing field operations against young people buying alcohol in public places. The second component is the police's investigative measures against those supplying alcohol to young people, i.e. against alcohol peddlers.

The measures adopted against young people using alcohol in public places are:

- Intervening against young people, younger than 20, who are intoxicated or carrying alcohol in a public place.
- Intervening against young people as above, but who are under 18 years of age, if they are in the company of someone else carrying alcohol.

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<sup>1</sup> Aschan & Goodwin 2006

- Forfeiting and carefully documenting the alcohol the young people are carrying
- Following up on where the young people got the alcohol from
- Contacting the parents of the young people concerned when they are younger than 18 years of age (minors) asking them to collect the young person and
- Contact with the social services if the parents do not collect their children and
- General meetings with parents where they are informed of the drive and about young people and alcohol.

The investigative measures against those peddling alcohol to young people are specified as:

- A special line of responsibility is established in the work on investigating alcohol offences,
- The investigative work is staffed by police who also take part in the field operations
- A report is set up for every suspected alcohol offence
- The alcohol that is forfeited is documented and followed up on
- The information gathered on where the young people have obtained the alcohol from is followed up on
- Investigations are carried out to take legal proceedings against those committing alcohol peddling offences and other alcohol offences that occur.

## Measures to counteract the demand for alcohol

The first step in the K-model is for the police to intervene against young people who are intoxicated in a public place or where the circumstances are such that they risk becoming intoxicated. The most important target group is young people under 18 years of age, as the interventions against them also mean that their parents are to be contacted. This contact is supposed to increase the possibility of having a long-term influence on the young people's alcohol behaviours and preventing them from falling back into alcohol-related situations in public environments.

Table 1. The number of interventions, the average number of interventions per month, the percentage of interventions in relation to the number of young people, the number of interventions involving young people under 18 and the percentage of young people in the K-models target groups.

Police district	Number of interventions	Average number of interventions per month	Percentage of interventions per year in relation to number of young people aged 13-19	Percentage of interventions involving young people under 18	Percentage of young people in each target group the interventions have referred to			
					Intoxicated	Carrying alcohol	Both intoxicated and carrying alcohol	Together with someone carrying alcohol
Piteå	147	29	9	51	13	43	42	2
Sundsvall	286	41	6	75	23	36	34	7
Enköping/ Håbo	243	35	7	68	15	53	20	14
Nacka	177	29	4	76	19	43	20	18
Skärholmen	-	-	-	-	-	-	-	-
Karlstad	163	23	4	59	15	45	35	5
Gotland	43	11	2	53	24	43	25	5

The information in Table 1 shows that the police have, as the model prescribes, intervened against young people with alcohol. In relation to the number of young people registered in the districts (column four), it is clear that the police have carried out interventions to the greatest extent in the Piteå and Håbo/Enköping districts. The percentage of interventions relating to young people under 18 years of age was greatest in the Nacka and Sundsvall districts.

The police are not, therefore, only to intervene against young people carrying alcohol in a public environment but also against young people who are intoxicated or in the company of someone carrying alcohol. Information gathered shows, however, that it was more common for the police to intervene because young people were carrying alcohol than because they were intoxicated or with someone carrying alcohol, which is in line with how they traditionally work.

### **A great increase in forfeitures**

Another important part of the K-model is that the police are to directly forfeit the alcohol the young people are carrying – and then set up a so-called forfeiture record.



Table 2. The number of direct forfeitures according to the forfeiture records in the districts during the period of the project, the years 2005-2008.

Police district	2005	2006	2007	2008	Number of forfeitures in 2008 if the project period had been throughout the entire year. Comparative measurement	The percentage of young people in the police district who had their alcohol forfeited during the project period. <sup>2</sup>
Piteå	-	53	135	167	401	10
Sundsvall	55	29	37	197	337	4
Enköping/Håbo	-	51	43	200	343	6
Nacka	13	13	46	158	316	4
Skärholmen	26	52	108	146	250	3
Karlstad	48	54	16 <sup>3</sup>	14+163	303	4
Gotland	70	132	93	127	381	6

Table 2 shows that the number of forfeitures of alcohol carried by young people increased significantly during the project period in 2008. The greatest increase in numbers was in the Sundsvall and Nacka districts. The information on the estimated number of forfeitures if the project period had lasted for an entire year provides a picture of the intensity of the police's forfeitures. It shows that the intensity was relatively evenly distributed between the districts, but highest in the Piteå district. It also shows that the estimated percentage of all young people who would have been subject to these initiatives if the project had lasted for an entire year was also highest in the Piteå district.

### Contact with parents and with the social services

Another important component of the K-model is that the police are to contact the parents when they intervene against young people who are under 18.

Table 3. The percentage of interventions that police carried out against young people under 18 during the project period where the police have contacted guardians

Police district	Percentage of interventions against young people under 18 years of age where the police contacted guardians
Piteå	70
Sundsvall	85
Enköping/Håbo	67/81
Nacka	92
Skärholmen	-
Karlstad	94
Gotland	65

Table 3 shows that the percentage of interventions against young people under 18 where the police had contacted the parents varies from 94 percent in Karlstad

<sup>2</sup> This is the quotient between the number of forfeitures during the project period (calculated as if the project had lasted a year), divided by the number of young people between 13 and 19 who were registered in the police district on 31/12/2007. This does not mean, however, that a forfeiture always applies to one unique person. A person may have had alcohol forfeited on several occasions. The measurement has been produced in order to facilitate comparisons between police districts.

<sup>3</sup> The reason for the low figures in 2007 is that the police in Karlstad began to work using an "alcohol report" instead of a forfeiture record, which have not been registered as forfeitures. The forfeitures indicated are believed to be cases where the station command made a decision on a forfeiture and this has, therefore, been entered in the diary.

district to 65 percent in the Gotland district (no information available for the Skärholmen district). It could also be added that the percentage of cases where the parents also picked up their children was greatest in the Piteå and Enköping districts. There were only a few cases of the police setting up and sending a report to the social authorities due to the parents not cooperating – and only in the Sundsvall and Nacka districts.

### **It has only been possible to arrange a few information meetings**

A further component of the K-model is that the police are to arrange joint information meetings with the parents whose children have been subject to an alcohol-related intervention. These information meetings were only implemented in the Sundsvall district. In the combined district of Håbo/Enköping, the police tried to arrange such meetings but the response from the parents was so poor that they came to nothing.

### **The young people have changed their behaviours**

The police's assessment in the districts where the K-model has been applied in a more systematic manner is that the young people have changed their drinking patterns so that they are drinking and intoxicated to a lesser extent in public places. The young people have quickly realised how the police are working and have adapted to this. The number of young people treated for alcoholic poisoning has reduced in several places. On the other hand, it is seen as uncertain whether the young people are also drinking less in a private context.

## **Measures to counteract the availability of alcohol**

### **Reports of offences under the Alcohol Act increased in all districts**

In addition to the documentation on the actual forfeiture of alcohol, according to the model the police should also set up a report on offences under the Alcohol Act. The aim is to generate better documentation so as to be able to find and take proceedings against those who peddle alcohol to young people.

Table 4. The number of offences under the Alcohol Act during the project period and equivalent period during the years, 2005-2007. The number of offences in the reports are also shown in respect of the project period (2008).

Police district	2005 reports	2006 reports	2007 reports	2008 reports/offences
Piteå	20	4	5	29/97
Sundsvall	9	12	82	286/333
Enköping/Håbo	-	-	10	148/158
Nacka	5	9	8	118/118
Skärholmen	17	-	11	47/73
Karlstad	48	51	107	144/163
Gotland	7	7	34	42/49

Table 4 shows that the number of reports increased in all districts during the project period (the number of offences that these reports contained is also shown for 2008). The increase in the Enköping/Håbo and Nacka districts was particularly great. In the Skärholmen and Piteå districts, there was a big increase, but the levels were low. In the Karlstad district, a great number of reports were done, but the increase was not as great when compared with previous years, as the police were already reporting on this type of intervention. The most common offences were the

illegal sale or possession of alcoholic drinks, except in the Nacka district where the most common offence was the illegal purchase of drinks.

### **Investigation organisation**

According to the K-model there should be a resource specially set aside and that carries out initiatives in the field and performs investigations into alcohol offences. Through this, information is concentrated to a group of police officers. It was only in Sundsvall that the work was organised in this way. Here, four police officers were set aside to completely dedicate their work to the K-model, at the same time as other police staff also took part in the field work, which meant a bigger and more dedicated contribution than in other districts. In the Nacka, Karlstad and Håbo/Enköping districts a plan was drawn up for how investigations into alcohol offences were to be handled, including more resource-intensive investigations. In these districts, investigations into the peddling of alcohol were carried out to some extent by a youth group and to some extent by other investigators. In the Piteå, Gotland and Skärholmen districts, no special investigation organisations were created and the investigations were distributed and handled as before.

### **Few investigations into alcohol offences**

The extent to which the reports recorded led to preliminary investigations being launched and whether the investigations were passed on to the prosecutor varies between the police districts. Sundsvall is the district that succeeded in identifying the greatest number of suspected alcohol peddlers and launching preliminary enquiries against them. They also passed on the most cases to the prosecutor for proceedings. Other districts were not as successful in their work involving alcohol peddlers and the figures are so low that it is not appropriate to present them in tables due to confidentiality.

## **Different police districts also used the model in their work to different degrees**

The idea was that all participating police districts would apply the model fully during the trial period. The above account shows, however, that no district has fully used all components of the K-model in its work. Some districts have, however, implemented the model to a greater extent than others. The Swedish National Council for Crime Prevention is of the opinion that some of the districts have carried out such tangible, extended initiatives within the framework of their work using the model that it is reasonable to imagine that this would have an effect on the number of crimes of violence among young people in a public environment. Other districts have introduced the model to some extent but the change is too small to have any appreciable effect on crimes of violence. The districts that it is believed have worked using the model sufficiently to be able to have an impact are Sundsvall, Nacka, Karlstad and Håbo. Piteå and Enköping belong to an intermediate group that has not implemented the K-model to as great an extent. Gotland and Skärholmen are the two districts that have done far too little for it to be reasonable to attribute any reductions in violent crime among young people out on the town to the K-model.

## **Effects on reported violence**

The indicator of the actual violence is the number of reported cases of assault and it has been well established that only a few of all assaults are reported. This means that changes in the risk of detection or tendency to report matters may

lead to changes in the number of cases of assault reported without the actual level having changed. One of the circumstances that makes things more difficult in this context is that working according to the K-model means that the police are more active in places where young people consume alcohol and will, therefore, perhaps come into contact with and set up more reports concerning a greater percentage of the cases of assault that occur. This would, in turn, mean the statistics on offences reported capturing a greater number of the actual crimes of violence than before. But, this is a problem that will not, in this case, lead to a risk of the potential impact of the K-model on crimes of violence being overestimated, but, rather, underestimated.

Table 5. The number of reports of assault among young people in the respective districts during the months of the project in 2008 and the corresponding months in the years, 2005-2007, and the change expressed as a percentage between the trial year, 2008, and the average of the years, 2006 and 2007.

Police district	2005	2006	2007	2008	Change from 2006/2007 to year 2008, percentage
Sundsvall	61	108	100	76	-27
Karlstad	52	61	63	53	-15
Nacka	27	22	46	33	-3
Håbo	12	13	19	16	0
Piteå	25	38	17	25	-10
Enköping	30	29	22	29	+14
Skärholmen	58	61	48	47	-14
Gotland	39	48	36	34	+5

Overall, Table 5 provides the first indication that working using the model may have had a positive impact. The crimes of violence recorded among young people in public environments reduced most in two of the districts that worked most intensively using the model (Sundsvall and Karlstad districts) and it did not increase in any of these four districts (Sundsvall, Nacka, Karlstad and Håbo districts). What initially makes it difficult to make clear-cut interpretations is that crimes of violence in the public environment also demonstrated tangible reductions in the Piteå and Skärholmen districts, which implemented the model to a lesser extent.

Table 6 shows the changes described above in the number of reports of assault among young people, in parallel with the changes in the total number of reported offences involving assault outdoors in the entire project areas and the number of these assaults outdoors reported in the counties, excluding the police districts where the project was carried out.

As regards this information, it was not possible, for reasons of resources, to select only violence among young people. The information has, instead, been taken directly from the official Swedish crime statistics. This has meant that different data is used to describe trends in the trial areas, compared with those in the comparison areas, which is not ideal. The change has been calculated as a percentage through the number of cases of assault in 2008 being related to the average number of cases of assault in the years 2006 and 2007.

Table 6. Change expressed as a percentage of the number of reports of assault among young people in the police district and the total number of offences involving assault reported in the police district and the county, excluding the police district, in the years 2006-2007, compared with 2008.

Police district	Change in number of reports of assault among young people in the police district, expressed as a percentage	Change in the number of offences involving assault outdoors reported in the police district, expressed as a percentage	Change in the number of offences involving assault outdoors reported in the rest of the county, expressed as a percentage
Sundsvall	-27	-12	+4
Karlstad	-15	+6	+21
Nacka	-3	+15	+2
Håbo	0	+2	+2
Piteå	-10	-10	+3
Enköping	+14	+4	+4
Skärholmen	-14	* <sup>4</sup>	+2
Gotland	+5	+5 <sup>5</sup>	+5

The assumption for the comparisons in Table 6 is that the change in the number of reports of assault among young people in the project areas (column 2) should be more positive than the change in the total number of reported assaults (column 3) or the total number of reported assaults in the rest of the county (column 4). Otherwise, it is difficult to speak of the positive impact of the K-model.

If we begin the analysis with the four districts that have used the K-model most in their work, we can see that the supplementary information reinforces the image of a positive result. Table 6 shows that the trends in crimes of violence outdoors among young people in the Sundsvall and Karlstad districts was clearly more favourable than trends in both other crimes of violence outdoors in the district and crimes of violence in the rest of the county. As regards Nacka district, the information in Table 5 gave the impression that the measures had not had a sufficiently great impact. But if we take the trends in violence in the district in relation to the trends for all crimes of violence outdoors in the district and in the rest of the county, the picture becomes a positive one. As regards Håbo district, none of the tables indicate that the K-model had any great effect on crimes of violence among young people. There does not appear to be any impact in the Enköping, Piteå, and Gotland districts, where the K-model was implemented to a limited extent. As regards Skärholmen, the assessment is that the reduction in assaults among young people could have some unknown explanation other than the limited work using the K-model.

## Discussion

Overall, it is a positive picture that emerges from the evaluation of the K-model. During the project period, most participating police districts have tangibly changed their way of working with regard to interventions against young people in the public environment. The experiences from the police districts that have worked in accordance with the model show that active work on the part of the police can reduce the drinking of alcohol by young people in a public environment. The fact that young people are prevented from drinking in a public environment has also led to fewer young people needing treatment for alcoholic poisoning. The statistical results strongly suggest that this may, in turn, contribute towards reduced crimes of violence in a public environment. This is pleasing, particularly in light of

<sup>4</sup> There are no statistics for Skärholmen's local police district as it does not overlap with the district boundaries and the official crime statistics can only be obtained at district level.

<sup>5</sup> Gotland Municipality and Gotland County have the same geographic demarcation. The increase of 5 per cent reported for both the municipality and county refer to the same offences.

the fact that this involves a clear and comprehensible way of working, which is relatively easy to introduce. Individual general police strategies, such as selective patrols, have previously received scientific support<sup>6</sup> but the K-model is one of the few evaluated methods that consists of a tangible way of working that has also demonstrated positive results.

### **What may have had an impact?**

The K-model has been launched as a working method focusing on both the demand for alcohol among young people, i.e. their opportunities and motivation to drink alcohol out on the town, and the availability of alcohol. The evaluation indicates that the results achieved could probably primarily be linked to a reduction in the motivation of young people to drink alcohol in public places.

This has become less tempting as the young people notice that there is a great risk of the police intervening and pouring out the alcohol and calling their parents. There is also a great risk of their parents coming to get the young people and that will bring an end to their evening.

In the other hand, it is less reasonable to assume that the results in the police districts studied are a result of it becoming more difficult to get hold of alcohol. This is because it has not been possible to find more than the odd alcohol peddler in any district other than Sundsvall. It is, therefore, also difficult to say how great an unutilised potential the model has. It is not possible to determine whether the impact would have been even greater if the police were more effective with regard to investigating alcohol peddling offences so that legal action was taken against more alcohol peddlers.

### **Planning, time and resources are required**

One of the conclusions that can be drawn is that good planning, time and resources are required in order to introduce and work in accordance with the K-model. In several of the participating districts, there have been shortcomings in this respect. The study was intended to be an evaluation of the effects of the method in seven different police districts, but the evaluation has become more limited as several of the districts selected have not, in reality, fully used the model in their work. These districts, i.e. Piteå, Enköping, Gotland and Skärholmén – have instead had to act as a form of control district in the impact analysis. The components of the model that appear easiest to introduce are those that concern the direct work involving young people out on the town. These are elements that involve outreach work to find young people in the target groups, forfeiting alcohol and direct contact with the parents. What has been more difficult is implementing primarily investigative work into alcohol peddling offences. It is only in Sundsvall that the model has been followed when it comes to the organisation of investigative work. There, they have not only been working with young people but investigative work has been carried out in a specially appointed group, in this case a youth group, as prescribed in the K-model. In other districts, the police have found it more difficult to arrange a good organisation and sufficient time for this work. The fundamental ideas from the K-model with information meetings and participation from the social services, have not been implemented either in the majority of participating police districts.

It is important to learn lessons from these difficulties in implementation when the police come to continue to roll out the K-model in this country. The evaluation suggests that working in accordance with the model may have an impact even if it is not fully applied in the way it is in Växjö. But it is also important to

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<sup>6</sup> Braga (2007)

establish what the minimum requirements are in order to be able to say that the model is being applied and for the prerequisites for a positive impact to exist.

### **Are there any downsides?**

The evaluation gives a positive picture of the model. But there may still be grounds for asking the question of whether there may be some downsides to using this method of working. The parents concerned, who were interviewed in the study, have a positive attitude to the police's work. They are grateful that they have been made aware that their children are drinking out on the town or are in a situation where they are at risk of doing so. The police and social services are positive about it as they can see that things have become calmer out on the town and that fewer younger people are being taken into custody and receiving treatment due to intoxication. Those who should, on the other hand, have a more mixed picture of this method of working are the young people themselves. The picture that the Swedish National Council for Crime Prevention has formed is that young people under 18 years of age, who are minors, usually accept the police's intervention. They may become agitated and surly at the time but, for this age group, their parents quickly enter into the picture and take over the police's role as "inhibitors of their freedom" and standard bearers.

As regards the older youths, between 18 and 19, who are not minors, the police have a more difficult role. They have acquired a greater degree of freedom in their lives and have greater independence in relation to their parents, who have not become involved in the intervention either. It is stated that they often react more to the police's intervention and the forfeiture of their alcohol.

When it comes to both young people who are minors and those who are 18 and 19, it is extremely important that the police can meet the young people in as good a way as possible and try to generate understanding of this method of working. Otherwise there is a risk of young people's confidence in the police reducing, which could have negative consequences in other respects. The participating police's own picture is that, seen overall, it has worked well in this respect up to now.

But it is important to be vigilant in the long-term that this way of working does not negatively affect young people's relationships with and view of the police.

### **Further evaluations of the Kronoberg Model would be valuable**

The Swedish National Council for Crime Prevention's evaluation is relatively limited. There are not many police districts that have applied the model and the project period is quite limited. In order to obtain more secure evidence for the conclusion that working in accordance with the Kronoberg Model may reduce violence among young people in a public environment, it could be of value to carry out further evaluations. These evaluations would also be able to study how the model "survives" when it is to be carried forward into regular work and whether the model can be applied in a less resource-intensive manner without its impact disappearing.

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