

(ABSTRACT)
ALCOHOL AND DEATH BY VIOLENCE.

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Twenty-five slides are used to demonstrate the statistics covering a seven and a half year period at the Cuyahoga County Coroner's Office, Cleveland, Ohio, recording the alcohol incidence in vehicular accidents, deaths from accidents other than vehicular, homicides, and suicides.

Three studies are presented: (1) A four year study of the fatalities occurring in the period of 1937--1940 Inclusive; (2) One month study of 178 non-fatal vehicular accidents; and (3) a three and a half year study, 1941 through June 1944.

SLIDE NO. 1. Presents a drawing representing a composite sagittal section of a brain, part median, part para median, with a demonstration of the physiological and psychological manifestations of the effects of alcohol.

SLIDES NOS. 2, 3 and 4. Are scatter diagrams showing the correlation of alcohol concentration (1) in the spinal fluid and blood, (2) in the spinal fluid and urine, and (3) in the blood and urine; these specimens were taken simultaneously from the same individuals.

SLIDE NO. 5. ALCOHOL INCIDENCE IN FATAL VEHICULAR ACCIDENTS, presenting 513 cases tested for alcohol. These cases represent 51.4% of the total vehicular accidents during 1937--1940 Inclusive. (Cases showing the presence of alcohol in the blood are divided into three categories, 0.04% or less, 0.05%--0.19%, and 0.20% or more.) 54% of all cases tested were positive for alcohol. 58% of the males tested showed the presence of alcohol, with 31% in the category of 0.20% or more.

35% of females showed presence of alcohol with the majority of cases in the 0.05--0.19% category. 314 pedestrians were tested with alcohol incidence of 55%,-- 30% in the category of 0.20% or more. 114 drivers were tested with an alcohol incidence of 58%-- slightly more than half of the cases having an alcohol concentration in the blood of 0.05-- 0.19%.

In the three and a half year study (1941--June 1944 Inclusive) 381 cases were tested, 49% of which were positive for alcohol. 57% of the males showed the presence of alcohol with 22% in the category of 0.20% or more. 23% of the females tested showed the presence of alcohol. 49% of the pedestrians gave positive alcohol tests. 56% of the drivers showed the presence of alcohol with 19.3% in the 0.20% or more. 42.3% of the occupants revealed the presence of alcohol.

SLIDE NO. 6. NON-FATAL VEHICULAR ACCIDENT STUDY, (178 cases). 39% of all cases tested were positive with 28% having an alcohol concentration of 0.20% or more. 46% of the males tested revealed the presence of alcohol with 31% in the group of 0.20% or more. 20% of the females tested had alcohol present. Pedestrians did not contribute as many cases to this study, but do demonstrate the highest alcohol incidence, 52%. 30% (Thirty-four percent) of the drivers were "under the influence of alcohol",

SLIDE NO. 7. FATAL VEHICULAR ACCIDENTS--MONTHLY ALCOHOL INCIDENCE:

In the four year study (1937--1940 Inclusive), the greatest number of accidents occurred in October, November and December. The highest alcohol incidence (70%) occurred in May. In the three and a half year study, the greatest number of accidents occurred in January, March and December. The highest alcohol incidence appeared in July and August, 63% and 69% respectively.

SLIDE NO. 8. FATAL VEHICULAR ACCIDENTS--DAILY ALCOHOL INCIDENCE.

Most of the accidents occurred during the week-end. Highest alcohol incidence is found on Sunday.

SLIDE NO. 9. NON-FATAL VEHICULAR ACCIDENTS--DAILY ALCOHOL INCIDENCE.

The majority of accidents occurred on Sunday, Monday, and Saturday. The highest alcohol incidence was on Monday, Tuesday, and Saturday.

SLIDE NO. 10. FATAL VEHICULAR ACCIDENTS--HOURLY ALCOHOL INCIDENCE.

The alcohol incidence is found to be greatest from 8.00 P.M., to 5.00 A.M., (1937--1940 Inclusive) and from 7.00 P.M., to 5.00 A.M., (1941--June 1944, Inclusive).

SLIDE NO. 11. NON-FATAL VEHICULAR ACCIDENTS--HOURLY ALCOHOL INCIDENCE.

The alcohol incidence rises from 8.00 P.M., until 5.00 A.M.

SLIDE NO. 12. FATAL VEHICULAR ACCIDENTS---ALCOHOL INCIDENCE IN AGE GROUPS.

The greatest number of fatal accidents involves the ages between 40--44, and 50--54, with a high alcohol incidence in each. Highest alcohol incidence (76%) occurs in the age group of 45--49.

In the current three and a half year period, the largest number of victims is found in the age group of 50--59, and the next largest number in the 60-64 category. In this study, there is an increase in the number of victims of the ages between 15 and 20, but the alcohol incidence dropped from 37% (1937--1940 Inclusive), to 32.4%--- (1941--1944). The highest alcohol incidence (68%) is in the age group of 30--34.

SLIDE NO. 13. NON-FATAL VEHICULAR STUDY--ALCOHOL INCIDENCE IN AGE GROUPS.

Approximately the same observations are made here as in the foregoing slide. The peak in alcohol incidence occurs between the ages of 35--54.

SLIDE NO. 14. VEHICULAR FATALITIES CORRELATING ALCOHOL INCIDENCE AND

THE TYPE OF ACCIDENTS:

<u>FOUR YEAR STUDY (1937--1940 Inclusive).</u>	<u>ALCOHOL INCIDENCE:</u>	<u>3 1/2 year 1941--1944 June. Inclusive. Alcohol incidence</u>
Moving vehicle and pedestrian:	56%	48.6%
Two moving vehicles	53%	48.0%
Loss of control of moving vehicle.	57%	34.8%
Fall from moving vehicle	75%	---

SLIDE NO. 15. VEHICULAR FATALITIES. CORRELATING ALCOHOL INCIDENCE AND LIGHTING

CONDITIONS AT THE TIME OF THE ACCIDENT.

<u>FOUR YEAR STUDY (1937--1940 Inclusive.)</u>	<u>Alcohol Incidence</u>	<u>3 1/2 year 1941--1944 June. Inc. Alcohol Incidence</u>
Daylight	24%	37.1%
Dusk	42%	27.2%
Night--good lighting	79%	55.3%
Night--poor lighting	56%	44.0%

(The majority of the accidents occurred at night with good lighting conditions)

SLIDE NO. 16. VEHICULAR FATALITIES. ALCOHOL INCIDENCE AND WEATHER CONDITIONS

AT THE TIME OF ACCIDENT:

<u>FOUR YEAR STUDY (1937--1940 INCLUSIVE.)</u>	<u>ALCOHOL INCIDENCE</u>	<u>3 1/2 year study. 1941-1944 June, Inc. Alcohol incidence.</u>
Clear	62%	48%
Cloudy	50%	35.3%
Fog	43%	50%
Rain	55%	56%
Snow	50%	27%
Sleet	43%	100%
Mist	47%	--
Unknown	62%	--

SLIDE NO. 17. VEHICULAR FATALITIES--ALCOHOL INCIDENCE AND CONDITION OF

THE ROAD AT THE TIME OF THE ACCIDENT:

<u>FOUR YEAR STUDY (1937--1940 Inclusive).</u>	<u>ALCOHOL INCIDENCE</u>	<u>3½ year study. 1941--1944 June. Inc. Alcohol incidence.</u>
Dry	59%	53.7%
Wet	54%	51.7%
Snowy	43%	28.5%
Icy	49%	20%
Paved	60%	48.8%
Unpaved	45%	100%
Gravel	36%	75%
Under Repair	25%	66%

SLIDE No. -18. VEHICULAR ACCIDENTS--ALCOHOL INCIDENCE CORRELATED WITH OCCUPATIONAL ACTIVITY.

In the four year study (1937--1940 Inclusive) skilled labor contributed this majority of cases with a high alcohol incidence, 68%. The professional group showed an alcohol incidence of 70%. In the current three and a half year study, the business group have the highest alcohol incidence (80%).

SLIDE NO. 19. VEHICULAR ACCIDENTS, CORRELATING ALCOHOL INCIDENCE AND CAUSE OF DEATH:

Greatest number of cases suffered from fractured skulls, and demonstrated a high alcohol incidence, 53%.

SLIDE NO. 20. VEHICULAR ACCIDENTS, AT EARLY COMPARISON.

<u>YEAR</u>	<u>CASES</u>	<u>% DECREASE from 1937.</u>	<u>ALCOHOL INCIDENCE</u>		<u>TOTAL</u>
			<u>MALE</u>	<u>FEMALE</u>	
1937	350		60%	30.6%	54.7%
1938	234	33.1%	57.3%	40%	53.5%
1939	224	36.0%	57.4%	40%	53.5%
1940	191	45.5%	55.7%	33.3%	53.6%
1941	254	27.4%	60.6%	20%	50%
1942	216	38.2%	61.2%	36.8%	57.2%
1943	178	41.9%	47.0%	21.0%	41.3%

SLIDE NO. 21. ALCOHOL INCIDENCE IN FATALITIES FROM ACCIDENTS OTHER THAN

VEHICULAR: In the four year study 264 cases were tested representing 31% of the total deaths falling into this category. Alcohol incidence was 61%. The greatest alcohol incidence (82%) occurred in deaths resulting from fires, and 70% in those cases which were drowned. The alcohol incidence in falls was 67%. In Industrial Accidents the alcohol incidence was 28.5%.

In the three and a half year study 296 cases were tested representing 34% of the total number of cases. The alcohol incidence was decreased to 46.3%. Industrial accidents contribute a large proportion of these fatalities than in the four year period, 21.2% of the total ~~xxx~~ as contrasted with 7.9%. The alcohol incidence has decreased to 15.8%.

SLIDE NO. 22. ALCOHOL INCIDENCE IN HOMICIDES:

In this four year period (1937--1940 Inclusive) 57.7% of all homicides were examined for alcohol; 65% of all cases were "under the influence of alcohol." The alcohol incidence in the males was 58%.

In the current three and a half year period, the alcohol incidence in all homicides tested was 58.6%, a decrease of nearly 7%. The colored race contribute 60% of the victims with an alcohol incidence of 39.6%.

SLIDE NO. 23. MOTIVES FOR HOMICIDE CORRELATED WITH SEX, COLOR,
ALCOHOL CONCENTRATION, THE MODE, AND AGE.

SLIDE NO. 24. ALCOHOL INCIDENCE IN SUICIDES.

The alcohol incidence is lower in suicides, than in any other type of violence under discussion. In the four year study, the alcohol incidence in all suicides tested was 38%.

In the three and a half year study, the alcohol incidence has been lowered to 26%.

SLIDE NO. 25. MOTIVES FOR SUICIDE CORRELATED WITH SEX, COLOR, ALCOHOL
CONCENTRATION, THE MODE AND AGE.