

## Office Memorandum • UNITED STATES GOVERNMENT

TO : Arthur E. Rikli, Medical Director  
: Chief, Heart Disease Control Program  
: Division of Special Health Services

SES-MD-OR  
DATE: July 22, 1959

FROM : Herbert I. Sauer, Statistician  
: Heart Disease Control Program  
: Division of Special Health Services

SUBJECT: Risk of sudden death, age 60

Dr. Goddard's needs presumably are rates for white males by age for sudden attacks such as coronary attacks, strokes, and other sudden episodes which might affect the ability of commercial pilots to perform their tasks at crucial moments.

As you know, morbidity incidence data on such "sudden attacks" are grossly inadequate. Problems of definition of "sudden attack" of a coronary as distinguished from a gradual onset of a coronary would also need to be solved before even trying to collect data. Even then, there would undoubtedly be instances of a gradual onset, in which the individual would ignore the symptoms until they became acute.

Many deaths from arteriosclerotic (including coronary) heart disease (cause 420) and strokes (cause 330-334) would probably classify as "sudden deaths" but many would not. Probably those that would not be so classified would be more than offset by "sudden syncope" attacks which do not have a fatal outcome despite the fact that they are caused by a stroke or by a sudden decrease in blood pressure incident to coronary occlusion. Also pertinent is Dr. Walter Alvarez's point on the effect of multiple small strokes which are unrecognized but which have an important effect upon mental processes, such as memory, capacity for detail and judgment in the individual as his age increases.

Dr. Marienfeld suggests estimating or guessing that the "sudden syncope" rate is possibly twice the death rate for these two causes.

Whether or not these two causes of death together constitute a good measure of the risk of "sudden attack" (or even as an index of such risk), the rate for these two causes (arteriosclerotic, including coronary, heart disease and stroke) for white males for the year 1957 is as follows:

Age 25-29	.....	.01	per cent
" 30-34	.....	.02	" "
" 35-39	.....	.06	" "
" 40-44	.....	.14	" "
" 45-49	.....	.27	" "
" 50-54	.....	.51	" "
" 55-59	.....	.81	" "
" 60-64	.....	1.34	" "
" 65-69	.....	2.10	" "
" 70-74	.....	3.04	" "

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DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

PUBLIC HEALTH SERVICE

WASHINGTON 25, D. C.

BUREAU OF STATE SERVICES

July 27, 1959

Refer to: SHS-HD-C

PERSONAL-OFFICIAL

Dr. James Goddard  
4117 Great Oak Road  
Manor Park  
Rockville, Maryland

Dear Jim:

In response to your telephone request, enclosed you will find a memorandum developed by Mr. Herbert Sauer as a result of your question regarding the risk of sudden death due to cardiovascular disease. The tabular data at the bottom of the memorandum were obtained from the N.O.V.S. "yellow slip." I recognize that this represents a rather limited amount of information. However, this appeared to be the most useful information that we have available at the present time.

We have just assigned Dr. Gilbert Grossman to New York City where he will be working with Dr. Milton Helpern, Chief Medical Examiner, on a study of sudden deaths. Possibly this study will yield some information which may be of interest to you.

If this information should suggest other specific questions, we would be pleased to try and acquire the answers for you.

Best regards.

Sincerely yours,

*Buck*

Arthur E. Rikli, Medical Director  
Chief, Heart Disease Control Program  
Division of Special Health Services

Enclosure

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