#### SUMMARY

# Health among students enrolled in Danish higher education

Poor health is not only the cause of physical or mental disorders, it also leads to a number of obstacles in life generally, and these can be difficult to overcome. In order to ensure that everyone has free and equal access to education, it is important to consider the barriers met by students with poor health during their studies. There is currently only sparse knowledge about the number of students with poor health, and the consequences of this for their life as students.

In this report, the Danish Evaluation Institute (EVA) spotlights the scope and consequences of poor health for students. This report contributes knowledge about the number of students who experience poor health, and why these students may need special support to complete their education. The target group is people who work professionally on reducing barriers for students with poor health, but the report is also a useful supplement to the public debate on free and equal access to education.

Today, there are a number of options to help students with physical or mental disabilities, such as additional state educational grants or special educational assistance (SPS). In this report, EVA does not intend to evaluate these options, as we do not have data about students' use of them. Further studies could examine the benefits students gain from existing options and identify more specific challenges for students with poor health.

The report utilizes data from EVA's panel survey of students enrolled in Danish higher education, in which they have answered questions about different factors effecting student dropout. Health is one of many possible explanations to why students drop out of higher education. This report is part of a series of publications from EVA, published on the basis of EVA's panel survey. Other publications in the series consider factors such as study start and selection of a study. <sup>1</sup>

The report addresses four questions:

How many students have poor health?

What types of students have particularly poor health?

What barriers do students with poor health experience in the course of their first year of study?

How does poor health impact student dropout rates?

<sup>&</sup>lt;sup>1</sup> In 2019, EVA will publish other reports in the series, for example a report on students' housing situation and a report on study-related feelings among students.

#### Results

The overall picture is that the health of students is generally good, also when seen in relation to the population as a whole. However, the analysis indicates that health is a barrier to completion among a relatively small group of students who experience poor health. If educational institutions wish to strengthen the inclusion of all students, no matter their health, it is possible to focus on the relatively small group of students with poor health. The results in the report can be summed up as follows:

#### By far the majority of students have good health, but not all of them

Around 80% of students assessed their own health to be very good or good when questioned prior to the start of their programme. In contrast, around 3% replied that their health was poor or very poor. This corresponds to around 2,000 students out of the ca. 60,000 new students enrolled in higher education programmes each year. The figures do not include late enrolments and foreign students.

# Slightly more have poor health six months after the start of their programme

Six months into their programme, the percentage who assess their health to be very good or good fell to 75%. Lower down the scale, there is an increase in the percentage claiming reasonable health (up to 19% from 16%) and, finally, there is an increase in the percentage with poor or very poor health (up to 6% from 3%). These results cannot be interpreted as evidence that study start impairs students' health; it can merely be concluded that students' health appears to deteriorate after study start.

#### Students with poor health drop out more often

The risk of dropout is twice as high among students with very poor health compared to students with very good health. However, 71% of students with very poor health are still active on their studies after the first year. Nevertheless, the analyses indicate that poor health has the direct effect of increasing the risk of dropout.

#### Other results:

Poor health is not confined to special types of students. Students with poor health are more or less equally distributed across age, gender, sectors and grade averages from high school.

Poor health often goes hand in hand with several other barriers during students' studies. These barriers include a more challenging housing situation, lower motivation, weaker social integration on the study programme and bad examination experiences.

### **Perspectives**

#### Students' health-related symptoms should be studied more closely

The survey by EVA shows that a small group of students, comprising about 3% of the total intake, have poor health, and that the percentage of students claiming poor health increases to 6% when the measurement is repeated six months after the start of their programme. However, the analysis is based on self-assessed general health, and it is not known what health symptoms students have in mind when they assess their own health. Previous studies have shown that replies to the question are linked to respondents' actual health symptoms, including long-term sickness, loss of functional capacity, use of healthcare services and shorter life expectancy (Nielsen, 2008, 51). The replies to the question should, therefore, provide a good indication of the students' actual health. Determining what symptoms students are suffering from would require more detailed analyses. Furthermore, it could be relevant to analyse more deeply what lies behind the increase in poor health, and the specific symptoms involved.

#### Is enough being done to support students with poor health?

The main result of the report is that students with poor health have a greater tendency to drop out, and the analyses indicate that poor health actually increases the probability of dropout. Therefore, students with poor health have to struggle more to gain a higher education qualification. Given that the results show that health factors constitute a barrier for some students, it is natural to question whether there is enough support for this vulnerable group to complete their education and thus ensure free and equal access to further and higher education.

A number of schemes are available today for students with physical or mental disabilities. There is help for the disabled to finance their education programmes with disability supplements to their student grants. Students with physical or mental disabilities, including students with a chronic or serious illness that causes learning difficulties, can apply for special educational assistance (SPS). Assistance can include individual assistance, a study mentor, a sign language interpreter and writing interpreter, as well as ergonomic equipment such as adjustable height desks and ergonomic chairs and a number of IT aids. EVA does not aim at evaluating these options in the report.

# Need for more knowledge about the challenges facing students with poor health

In a report from 2016 on social educational support, EVA identified challenges facing SPS professionals on educational programmes, and the knowledge they require in their daily work. In this context, SPS professionals from upper secondary education and higher education programmes sought more knowledge about students with mental problems, developmental disorders and neurological disorders. There are also indications that, for some target groups in particular, there is a need to examine more closely methods to identify, describe and manage the needs of students with poor health. Further studies could, therefore, examine the benefits students gain from the existing options and identify more specific challenges for students with poor health.

#### About the data basis

The survey is based on register data from Statistics Denmark as well as a longitudinal study carried out by EVA of all students who were admitted to a higher education programme in the summers of

2016 and in 2017, excluding foreign students and late admissions. EVA issued an electronic questionnaire to be answered before programme-start for both the 2016 and 2017 intakes. The students who in 2016 said they could be contacted again, also received a questionnaire six months after the start of their programme. Almost 30,000 students responded to the questionnaire in 2016, of whom almost 10,000 responded again after six months. Almost 30,000 students responded to the questionnaire in 2017. The Appendix shows an overview of representativeness in relation to important variables.

The questionnaire survey asked students, "How would you describe your health in general?" The response options were: 'Very good'; 'Good '; 'Reasonable'; 'Poor'; and 'Very poor'. There was also a 'Don't know' option.<sup>2</sup> The question is being used by the OECD to measure the general health of the population. Previous studies have shown that replies to the question are linked to respondents' actual health symptoms, including long-term sickness, loss of functional capacity, use of healthcare services and shorter life expectancy (Nielsen, 2008, 51). Therefore, the question is likely to provide a good indication of students' general health. However, it must be noted that the question does not offer an accurate picture of the health symptoms the respondents are thinking about when they answer the question (Bowling, 2005, 342).

#### Weighting

All the results have been derived using propensity score weighting in order to ensure that the analysis selection reflects the population as much as possible. See the appendix for a detailed description of the weighting strategy.

## Organisation of the project

The report was prepared by Lars Dyrby Andersen, Consultant and Project Manager, Bjarke Tarpgaard Hartkopf, Special Advisor, Andreas Pihl Kjærsgård, Consultant, Mathias Tolstrup Wester, Consultant, and Anna Maria Wallner, Consultant. Furthermore, Professor Kim Mannemar Sønderskov from the Department of Political Science at Aarhus University advised in connection with the preparation of reports.

#### Literature

Bowling, Ann. (2005). *Just one question: If one question works, why ask several?* J Epidemiol Community Health. 59(5): 342–345.

EVA, Danmarks Evalueringsinstitut. (2016). Kvalitetsudvikling af vejledningen ifm. Specialpædagoqisk støtte. København: Danmarks Evalueringsinstitut.

EVA, Danmarks Evalueringsinstitut. (2017). Studiestartens betydning for frafaldet på videregående uddannelser. København: Danmarks Evalueringsinstitut.

<sup>&</sup>lt;sup>2</sup> In Danish, the question is: "Hvordan er dit helbred generelt?". Svarmulighederne er "Meget godt"; "Godt", "Rimeligt", "Dårligt" og "Meget dårligt". Det har også været muligt at svare "Ved ikke".

EVA, Danmarks Evalueringsinstitut. (2018) *Studievalg og frafald på de videregående uddannelser*. København: Danmarks Evalueringsinstitut.

Fan Li, K. L. M., & Zaslavsky, A. M. (2017). *Balancing Covariates via Propensity Score Weighting. Journal of the American Statistical Association*, 32(19), 3373-3387.

Nielsen, Anni Britt Sternhagen. (2008). *Selvvurderet helbred*. Kapitel 4 i: "Befolkningsundersøgelsen i Grønland 2005-2007 - Levevilkår, livsstil og helbred". Redigeret af Peter Bjerregaard og Inger Katrine Dahl-Petersen. Statens Institut for Folkesundhed.

Pike, G. R. (2008). *Using Weighting Adjustments to Compensate for Survey Nonresponse*. Research in Higher Education, 49(2), 153-171.

Rosenbaum, P. R., & Rubin, D. B. (1983). *The Central Role of the Propensity Score in Observational Studies for Causal Effects*. Biometrika, 70, 41–55.

Sundhedsstyrelsen. (2017). Danskernes Sundhed – Den Nationale Sundhedsprofil 2017. Sundhedsstyrelsen. Hentet her: https://www.sum.dk/Aktuelt/Nyheder/Forebyggelse/2018/marts/~/media/Filer%20-%20Publikationer\_i\_pdf/2018/Sundhedsprofilen%202017/Nationale\_sundhedsprofil.pdf