

Risk of Bias and journal quality

Preliminary results from an organisational repository of included studies

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Background

SBU has launched a project to build an organisational repository of included studies – which amounts to approximately 1000 full-text reviewed references each year.

An organisational repository of included studies has several potential areas of use, such as:

- follow up on research integrity issues;
- bibliometric analysis;
- if studies appears in more than one report;
- database coverage analyses and search filter validations;
- check correlation between risk of bias for individual studies and quality of journal.

As of June 2024, the repository contains all studies in SBU reports published between 2019 and 2023, reaching approximately 5000 references, including added descriptive organisational metadata and information on Risk of Bias (RoB) – low, moderate or high – and study type.

See Table 1 for database structure.

Aim

Here preliminary results are presented from a study, using data from the SBU organisational repository, on the correlation between RoB of primary studies or systematic reviews and journal ranking in the *Norwegian register for scientific journals, series and publishers* (NR).

The Norwegian register is a comprehensive curated list (n~38 000) used for reviewing quality of publication channels. The register consists of four levels (2, 1, 0 & X), as of which two are considered scientific (2 & 1). For full methodology of the Norwegian register, see QR link below.

Method

1997 systematic reviews and 2328 primary studies (mostly RCT's) were mapped to the Norwegian register in MS Excel using ISSN as unique identifiers.

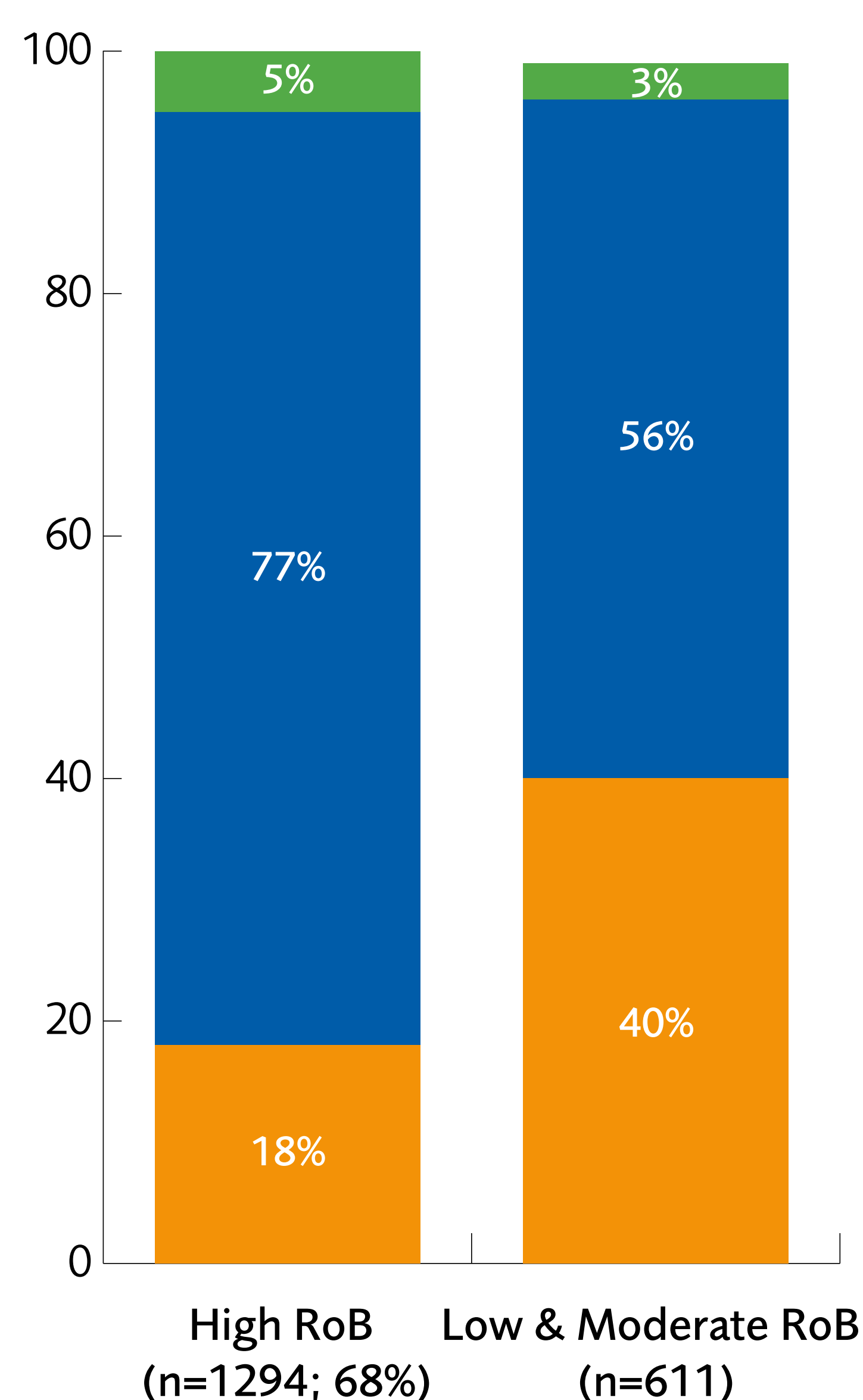
Two subsets were created in each category: (i) high RoB and (ii) low or moderate RoB.

Depending on study type, different appraisals tools have been used for the data set. Also, it should be stressed that RoB is not the same as quality of study per se but for specific outcomes related to a pre-defined review question.

Studies with high RoB are generally not included in the final analysis at SBU.

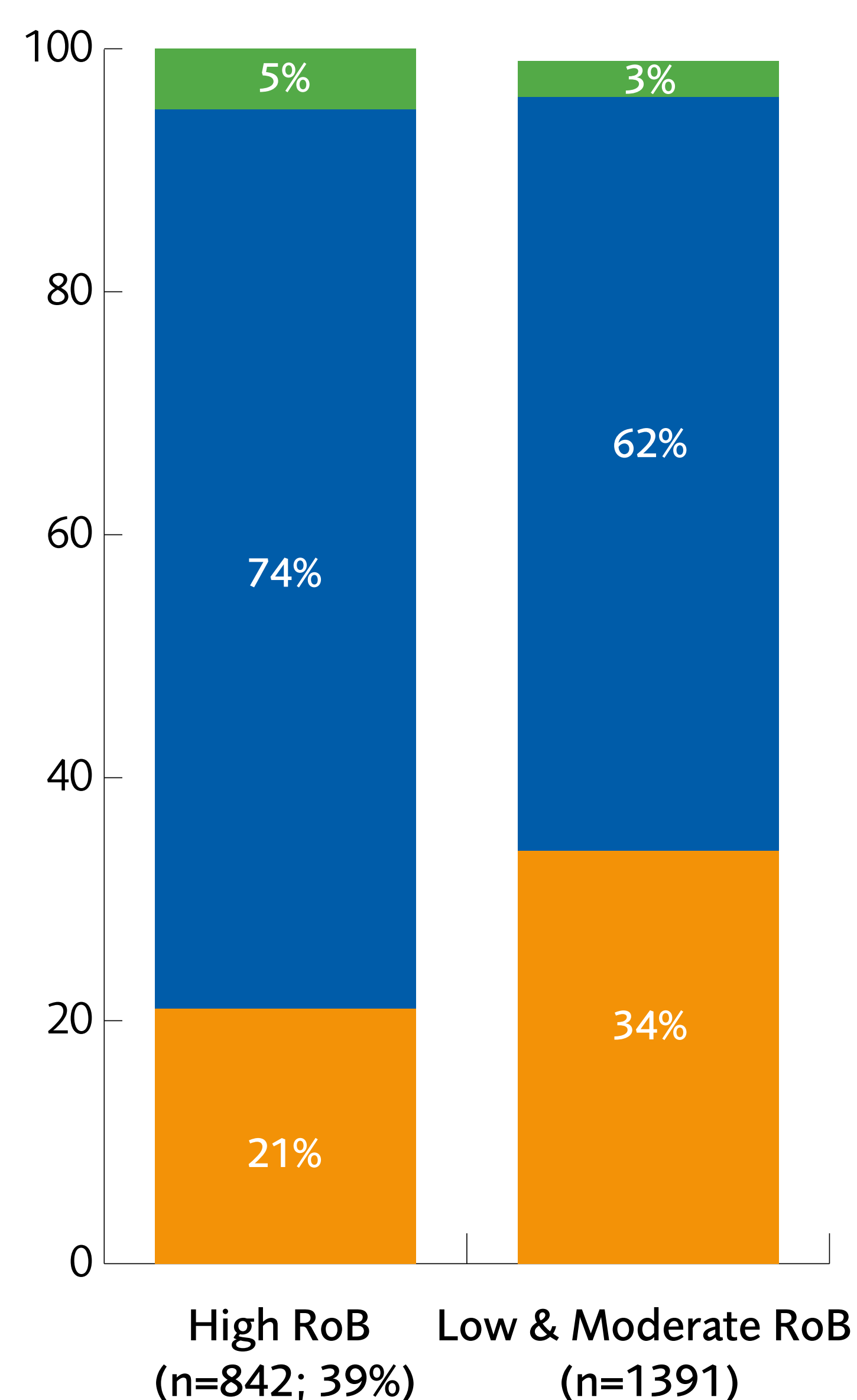
Table 1 Example of database structure for SBU organisational repository.

Included reference with bibliographic data from Scopus	Report title	Year	Project ID	Product type	Risk of Bias	Study type
Flook, 2015	Promoting mental well-being in children and adolescents	2022	350	SBU Assessment	Moderate	RCT
Nair, 2018	Treatment for postpartum psychiatric disorders	2021	325	SBU Evidence Map	Moderate	Systematic review
Collins, 2004	Intraoperative cholangiography in cholecystectomy	2019	297	SBU Assessment	Low	Prospective cohort



NR Level 2 NR Level 1 NR Level 0 & X

Figure 1 Systematic reviews.



NR Level 2 NR Level 1 NR Level 0 & X

Figure 2 Primary studies.

Results

The vast majority of full-text reviewed articles included in SBU reports are published in Level 1 or 2 journals (Figure 1 and 2). A higher share of low and moderate articles are published in Level 2 journals. For systematic reviews, this trend is more robust. More interestingly, perhaps, is how many Level 2 journals publish studies with high RoB.

The small subset of included studies in Level 0 and X should be analysed further, as well as the 5% of the included studies that could not be mapped to the Norwegian register.

On a final note, a current challenge for systematic review authors is the balance between identifying all eligible studies and the need to take into account research integrity issues such as unserious journals and publishers. Could the Norwegian register be used as a bulwark for predatory journals?



Scan the QR code for more information about the Norwegian register for scientific journals, series and publishers

For further questions, contact: carl.gornitzki@sbu.se

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