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Experience

Contributing to Evidence Synthesis as a First-Year Medical Student: My Experience with Cochrane Crowd

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The Experience

Background

The following article describes my experience contributing to evidence synthesis during my first year of medical school through opportunities available via Cochrane Crowd and Engage. Evidence synthesis forms the backbone of evidence-based medicine and improves patient outcomes.[1] Systematic reviews and meta-analyses of randomized controlled trials (RCTs) constitute the highest level of medical evidence.[1] The Cochrane Collaboration (established in 1993), named after Archie Cochrane, is a leading global organization that facilitates the publication of high-quality systematic reviews of medical interventions and tests, providing clinicians and patients with the information needed to make healthcare decisions.[2]

Cochrane Crowd is a web-based portal launched in 2016 that hosts microtasks such as screening for RCTs and extracting Population-Intervention-Comparison-Outcome (PICO) elements. Cochrane Engage, in contrast, is a volunteer platform where researchers and contributors in biomedical fields offer their expertise to complete tasks posted by other members. These include acting as a patient or public reviewer for Cochrane protocols and reviews, translating plain-language summaries into vernacular languages, and collaborating on evidence synthesis.[3–5]

Individuals from diverse backgrounds can contribute to advancing science as "citizen scientists," assisting in the extraction, analysis, and interpretation of data.[5] Cochrane Crowd offers an accessible entry point regardless of prior research experience. This was particularly appealing, as it allowed me to gain exposure to the fundamentals of evidence-based medicine while contributing to evidence synthesis.

Personal Experiences

My experience with the Cochrane ecosystem began by creating an account and navigating to the Crowd platform. There, I accessed concise visual modules covering key concepts in health research, study designs, and an introduction to the CONSORT statement. I followed the student learning pathway, which was clear and accessible, using practical examples to explain core concepts. After completing the basic training, I proceeded to volunteer tasks, each preceded by a brief instructional module.

Following training, I performed tasks including screening abstracts for possible RCTs or quasi-RCTs, extracting PICO elements, and classifying records from ClinicalTrials.gov and the International Clinical Trial Registry Platform (ICTRP). The primary task—classifying studies as RCTs—required determining whether a record met methodological criteria or should be excluded. An option to skip uncertain records was available. A reference guide listing acceptable study types, including RCTs, quasi-randomized studies, follow-up data from RCTs, and cost–benefit analyses of previously studied interventions, was provided and frequently consulted to ensure accurate classification.

Reviewing abstracts across diverse fields such as immunology, genetics, oncology, and hospital medicine was particularly valuable. I recall reviewing studies on soleus exercises in diabetes and remote ischemic limb conditioning in stroke, which prompted further independent reading.

A notable task type is the "Screen4Me" initiative, in which volunteers screen records for specific systematic reviews or protocols. Volunteers who complete more than 250 records may receive named acknowledgment in the resulting publication. Additional periodic tasks are posted on the platform, each accompanied by structured training. Global screening challenges are also organized, enabling contributors worldwide to collaboratively process large volumes of studies; I participated in several of these activities.

Overall, I screened 693 research records in August 2025 through Cochrane Crowd. I also contributed as a public reviewer for a Cochrane protocol, focusing on improving readability from a patient perspective, after applying through Cochrane Engage. These activities allowed me to accumulate membership points and obtain Cochrane membership for one year, providing formal recognition of my contributions (***Figure 1***).

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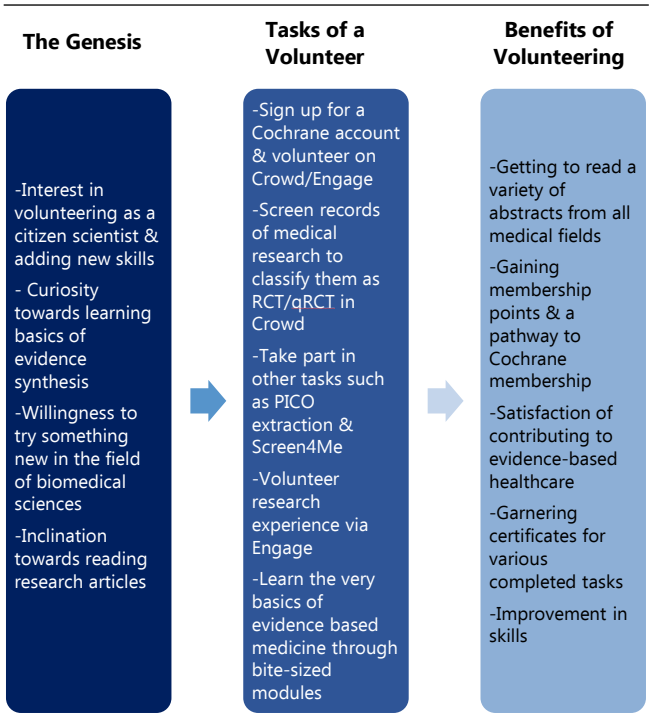
Figure 1. **Volunteering for various tasks on Cochrane Crowd and Engage: My Experience.**



Strengths & Role of Crowdsourcing in Evidence Synthesis

Studies classified as RCTs by at least four independent reviewers are included in the Cochrane Central Register of Controlled Trials (CENTRAL).[3] CENTRAL is a key resource within the evidence synthesis ecosystem, serving as a comprehensive database for systematic and Cochrane reviews.

Noel-Storr et al.[3] reported a sensitivity of 99.1% for public contributors identifying RCTs based on abstracts, supporting the reliability of the crowdsourcing model. In cases of disagreement, records are reviewed by the Cochrane Crowd team to ensure that eligible studies are not excluded.

In 2020, approximately 100,000 bibliographic records were screened annually by Crowd volunteers, while Cochrane's machine learning–based classifier processed an additional 200,000 records, resulting in approximately 300,000 studies assessed.[3] These figures underscore the complementary role of human contributors and automated tools in managing the growing volume of biomedical literature, estimated at approximately 1.5 million articles annually.[6]

Crowdsourcing has also demonstrated utility in rapid screening for COVID-19–related Cochrane reviews, highlighting its relevance in accelerating evidence synthesis during public health emergencies.[7]

Benefits for Medical Students & Conclusions

Many Cochrane Crowd volunteers are students in health-related fields, which may reflect their familiarity with medical literature and interest in research.[3] Based on my experience, medical students are well positioned to contribute due to their foundational understanding of clinical research and motivation to explore emerging topics.

Participants can obtain certificates for completed tasks and accumulate points toward Cochrane membership. Screening more than 1,000 records confers membership benefits, including access to learning materials and discounted use of RevMan.[8]

Contributing to evidence synthesis while developing research skills is valuable. Even brief, consistent participation can support the advancement of evidence-based medicine. Experiences may vary depending on time commitment and prior exposure to research.

In conclusion, participation in platforms such as Cochrane Crowd and Engage provides a structured and accessible pathway for students to engage in evidence synthesis and contribute to a global effort to improve patient care.

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