

Disseminating scientifically sound, clinically relevant literature in the web era: the relevance and newsworthiness of Cochrane reviews

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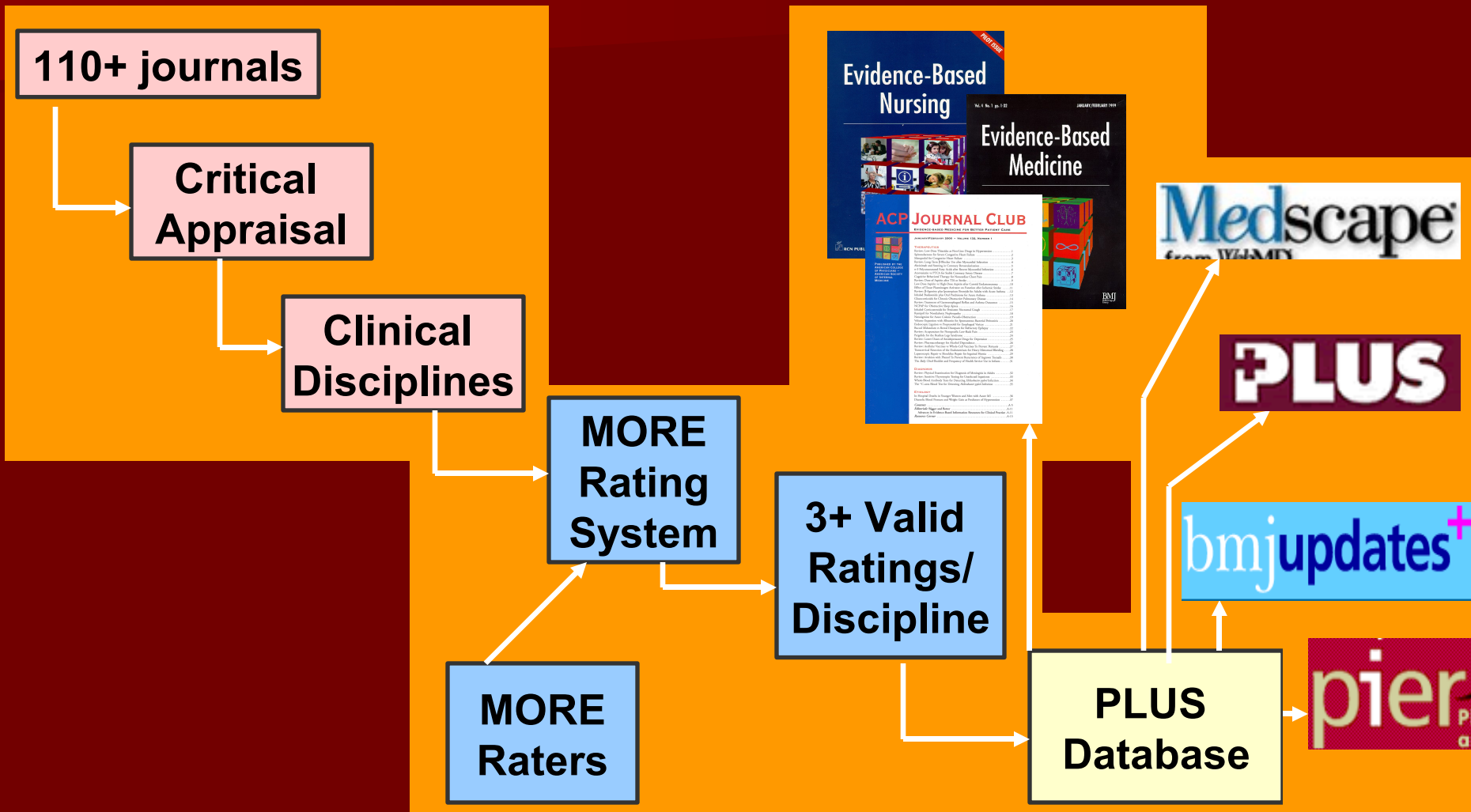
Objectives

- **Overview of critical appraisal in Health Information Research Unit (HIRU)**
- **Introduction to the McMaster Online Rating of Evidence (MORE) and Premium Literature Service (PLUS)**

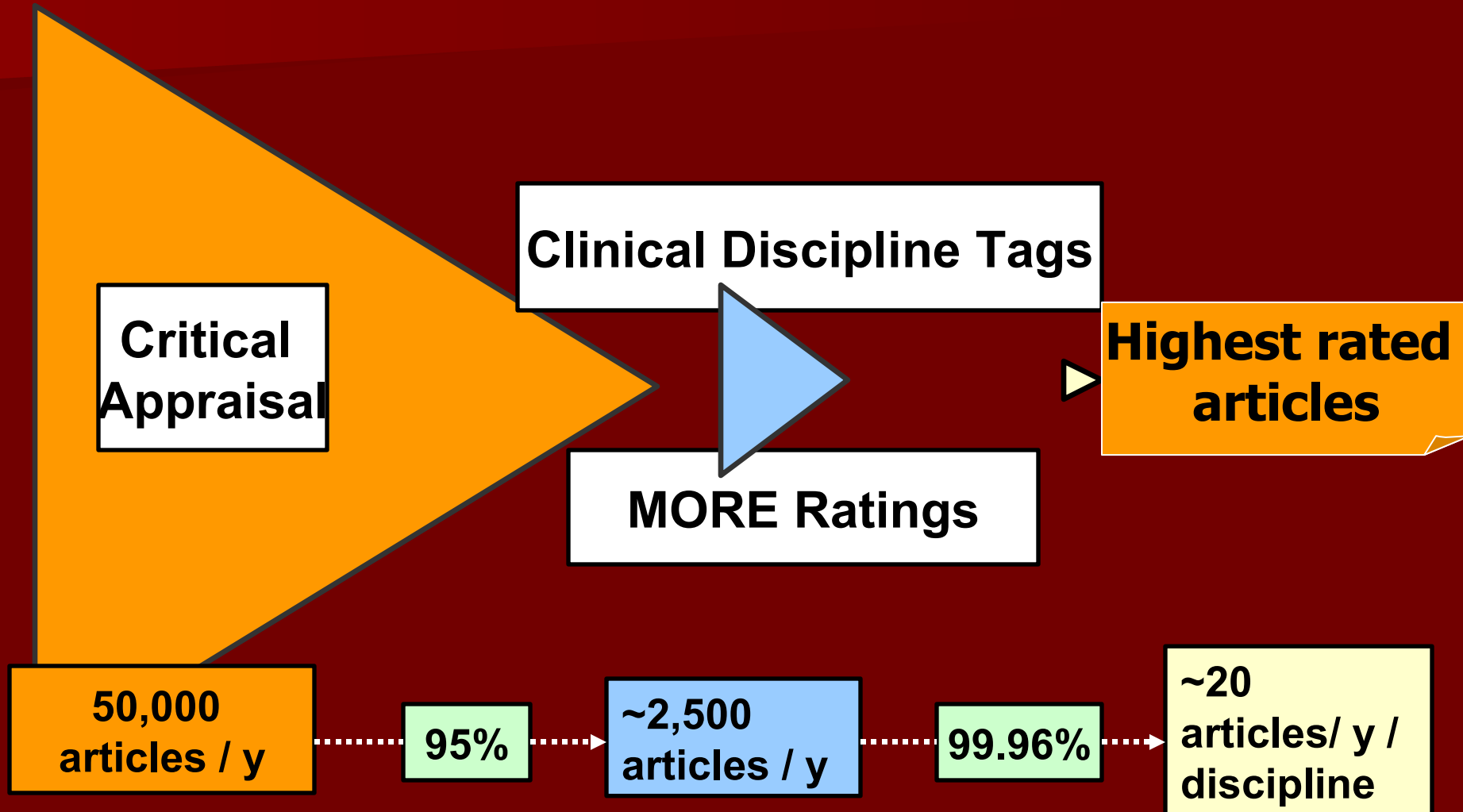
Objectives (continued)

- **Compare MORE clinical relevance and newsworthiness ratings for Cochrane reviews vs other journals**
- **Compare PLUS access rates for Cochrane reviews vs other journal articles**

Literature Selection in HIRU (Health Information Research Unit)



Quality Distillation Process



Where do the DATA come from?

- The RATINGS for Relevance and Newsworthiness come from the **MORE** Rating System (used by doctors around the world)
- The ACCESS RATES to articles come from the **PLUS** System (used by doctors from Northern Ontario, Canada)

PLUS System: Premium Literature Service

- **Internet-based alerting and look-up service**
- **A product of our Critical Appraisal Process and the MORE rating system**
- **Funding: Ontario Ministry of Health and Canadian Institute for Health Research**
- **Collaboration: Northern Ontario Virtual Library**

PLUS System (continued)

- **PUSH: PLUS sends e-mail alerts tailored to the registrant's clinical discipline(s) and rating preferences**
- **PULL: "Basic" and "Advanced" search engines for the PLUS cumulative database**

Top 10 (of 110+) Journals by No. of Review Articles, ordered by Relevance ratings (Feb '03-Jan '05)

Journal	No. of reviews in PLUS db	Mean Relev. Ratings (95% CI)
Obstet Gynecol	24	5.96 (5.80-6.12)
Ann Intern Med	58	5.91 (5.80-6.02)
JAMA	64	5.88 (5.78-5.99)
BMJ	80	5.82 (5.73-5.92)
Arch Intern Med	30	5.78 (5.63-5.93)
Lancet	36	5.71 (5.54-5.89)
Am J Med	30	5.70 (5.54-5.86)
Evid Rep Tech Asses	35	5.60 (5.45-5.76)
Aliment Pharm Ther	44	5.34 (5.21-5.47)
Cochrane Db Syst Rev	980	5.33 (5.30-5.37)

Top 10 Journals by No. of Review Articles, ordered by Newsworthiness ratings (Feb '03-Jan '05)

Journal	No. of reviews in PLUS db	Mean News. Ratings (95% CI)
Lancet	36	4.99 (4.78-5.20)
BMJ	80	4.80 (4.68-4.92)
Obstet Gynecol	24	4.76 (4.54-4.98)
JAMA	64	4.56 (4.43-4.68)
Ann Intern Med	58	4.55 (4.43-4.68)
Aliment Pharm Ther	44	4.54 (4.36-4.71)
Am J Med	30	4.50 (4.30-4.70)
Evid Rep Tech Assess	35	4.47 (4.28-4.66)
Arch Intern Med	30	4.42 (4.22-4.61)
Cochrane Db Syst Rev	980	4.33 (4.29-4.37)

Article Ratings

Cochrane Reviews vs. Non-Cochrane Reviews

■ Relevance Ratings

Review Type	# Ratings	Mean	95% CI
Cochrane	6981	5.35	5.32, 5.39
Non-Cochrane	7973	5.57	5.55, 5.60

■ Newsworthiness ratings

Review Type	# Ratings	Mean	95% CI
Cochrane	6866	4.36	4.32, 4.39
Non-Cochrane	7853	4.55	4.52, 4.58

Article Ratings

Review Articles vs. Original Articles

■ Relevance Ratings

Review Type	# Ratings	Mean	95% CI
Reviews	14954	5.47	5.45, 5.49
Original articles	26613	5.35	5.33, 5.37

■ Newsworthiness Ratings

Review Type	# Ratings	Mean	95% CI
Reviews	14719	4.46	4.43, 4.48
Original Articles	26168	4.71	4.69, 4.73

Cochrane Review Ratings

Generalist vs non-generalist physicians

■ Relevance Ratings

Rater Discipline	# Ratings	Mean	95% CI
Generalist	1689	5.15	5.08, 5.22
Non - Generalist	5200	5.42	5.39, 5.46

■ Newsworthiness Ratings

Rater Discipline	# Ratings	Mean	95% CI
Generalist	1669	4.21	4.13, 4.29
Non - Generalist	5203	4.40	4.36, 4.44

PLUS Article Record

Article # 2 of 2 articles ([see related](#))

Review: Somatostatin and its analogues do not reduce mortality in acute bleeding esophageal varices ACP J Club. 2005 Jul-Aug;143(1):16 Synopsis and comment on:

Gotzsche PC, et al. *Somatostatin analogues for acute bleeding oesophageal varices*. Cochrane Database Syst Rev 2005;(1):CD000193.

Previous

[ACP J Club](#) [Full Text](#) [Abstract](#)

RATED BY DOCTORS IN	RELEVANCE	NEWSWORTHINESS	COMMENTS
IM/Referred Care/Hospitalists	■■■■■■□ 6 of 7	■■■■■■□ 5 of 7	
Gastroenterology	■■■■■■□ 6 of 7	■■■■■■□ 6 of 7	View

Northern Ontario Discussion on this Article

[Add a Comment](#)

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Top 5 Most Accessed Journals: Review Articles

Journal	Rev Article Accesses	% of Reviews
CDSR	457	38%
BMJ	115	9.6%
JAMA	113	9.4%
Ann Intern Med	49	4.1%
Lancet	43	3.6%

CDSR ranks for user access in PLUS and BMJ Updates+ (www.bmjupdates.com), compared with 110+ top clinical journals

Measure	PLUS Rank	BMJ Updates Rank
Most citations accessed	1	1
% of articles accessed	9	5
Total no. of accesses	1	3
Abstract accesses	3	3

Fulltext clicks for PLUS Review Articles Top 5 Journals

Journal	Review Fulltext Clicks	% of Fulltext clicks
JAMA	54	19.7%
CDSR	52	19.0%
BMJ	44	16.1%
Ann Intern Med	16	5.8%
Lancet	14	5.1%

Depth of Access Score (DAS)

- **Consolidated view of the access rate results**
- **Calculated by adding the clicks to ACPJC, FullText, Abstract, Drug Links and Comments**
- **DAS Ratio: the number of secondary clicks per each review article**

Depth of Access Score (DAS)

Top Journals with at least 25 accesses

Journal	Article Accesses	DAS	DAS Ratio
J Am Acad Dermatol	27	35	1.30
BMJ	133	145	1.09
JAMA	123	131	1.07
Ann Intern Med	55	56	1.05
Am J Gastroenterol	25	26	1.04
Lancet	56	57	1.02
Aliment Pharm Ther	34	32	0.94
Cochrane Db Syst Rev	519	441	0.85

Conclusions

- **Cochrane reviews constituted over half of the systematic reviews rated by clinicians as relevant and newsworthy from over 110 clinical journals (MORE).**
- **But clinicians rated systematic reviews published in other journals somewhat higher for both relevance and newsworthiness.**

Conclusions (continued)

- **Cochrane's titles are clicked very often by the doctors in PLUS.**
- **But physicians access the PubMed abstract of Cochrane reviews to a greater extent than its fulltext format, and access fewer Cochrane fulltext articles than for reviews in other journals.**
- **Could this be due to editing or article selection or both?**

Limitations

- **Raters are volunteers (and likely keen about EBM and Cochrane)**
- **Data are observational**
- **We did not have prior hypotheses about differences in ratings**
- **We did not measure effect on knowledge, attitudes or behaviours**

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Recommended services:

- BMJUpdates+
(<http://www.bmjupdates.com>)
- MEDSCAPE Best Evidence (
<http://www.medscape.com>)

Thank YOU!