For Cochrane evidence in Russian we found steady rise in Interest and Confidence of website and social media followers within diverse audiences by profession, country, data acquisition, device use. Google translate performed better than Microsoft or DeepL translation engines.

## The Problem

- We translate Cochrane evidence in various formats (Memsource with machine translation engines for PLSs), and disseminate them via social networks. We maintain Cochrane Russia website;
- We evaluated the coverage and impact of communicating evidence in Russian and its outreach in Russia and beyond;
- We evaluated, which machine translation engine (MTE) works better for Russian translations
  of Cochrane PLS.

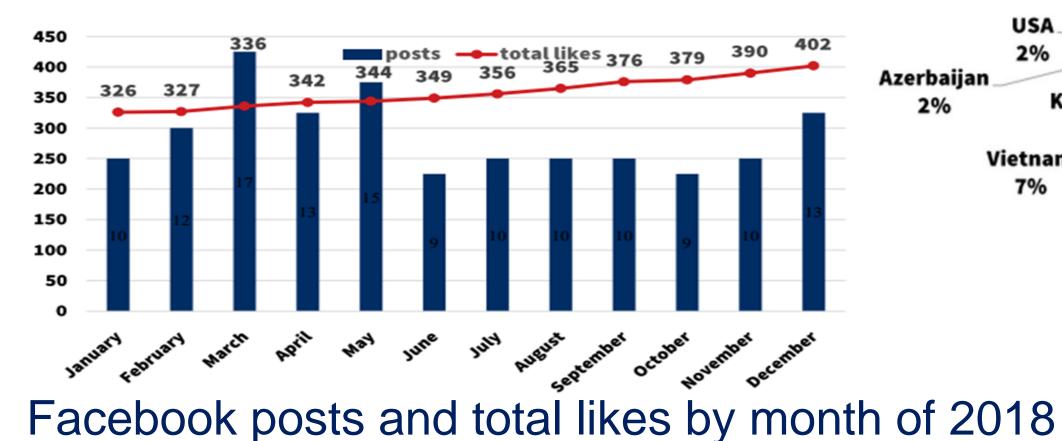
## Methods

- 1. Google analytics for the Cochrane Russia website and social networks;
- 2. Manual summing up of numerical data on followers, page views, likes, reposts in social networks
- 3. Comparison of numbers of website users, views and website sessions in 2016, 2017 to 2018.
- 4. Comparison of 3 MTE by quality and appropriateness for Cochrane PLSs using the machine translation quality estimation tool (MTQE) and human post-editing on Memsource translation management software.

  Google analytics for 2018 of Cochrane Russia social

## Key Results

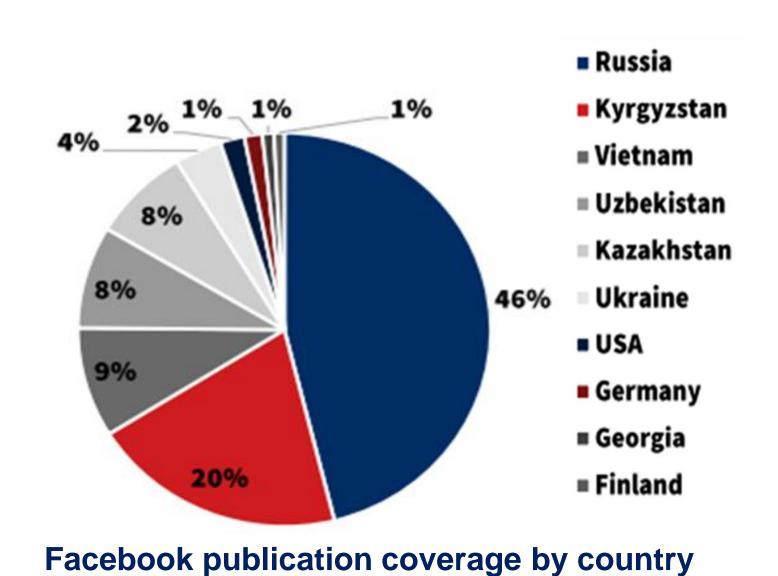
Facebook (466 followers in 2018)



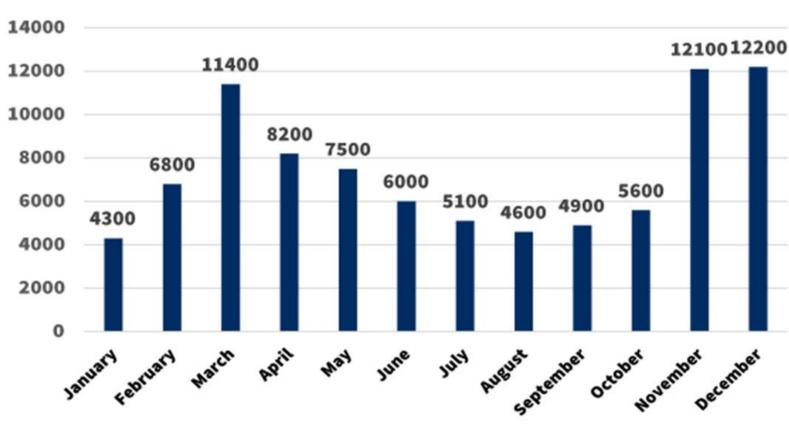
Belarus Armenia Other countries
2% Uzbeksitan 1% 6%
USA 2%
2%
Azerbaijan 2% Kazakhstan
7%
Vietnam 7%

Ukraine 8%

Kyrgyzstan 8%



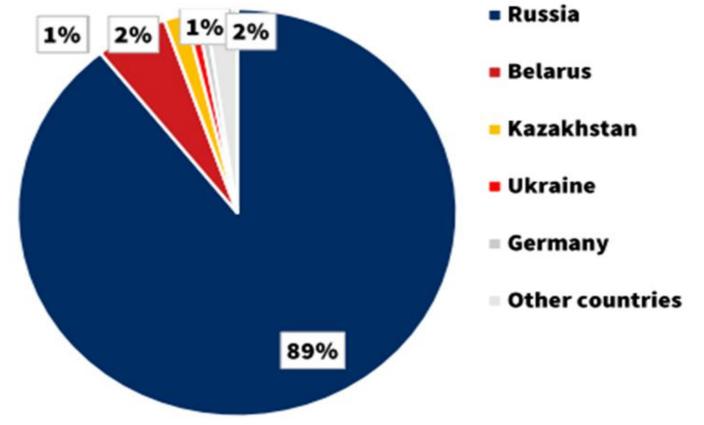
Twitter (948 followers in 2018)



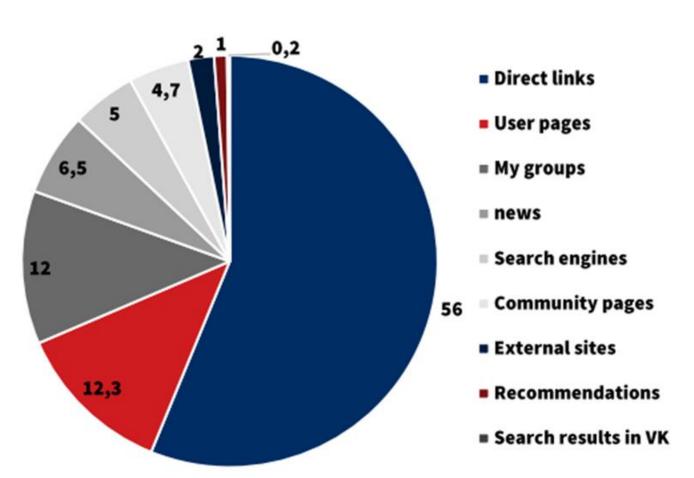
Tweet views by month of 2018

Vkontakte (7294 followers in 2018)

**Facebook followers** 

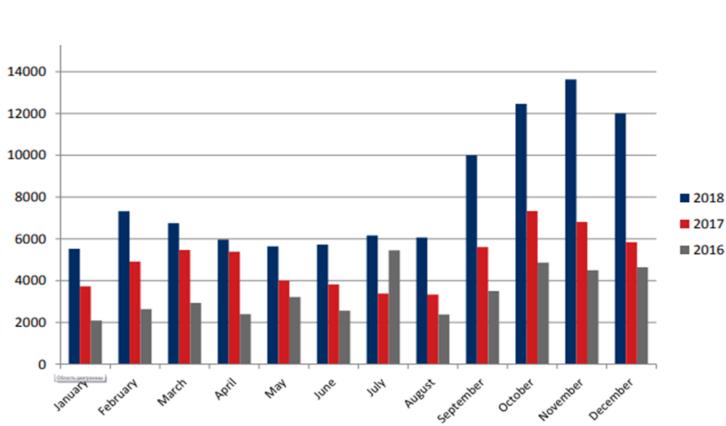


**Coverage by country** 

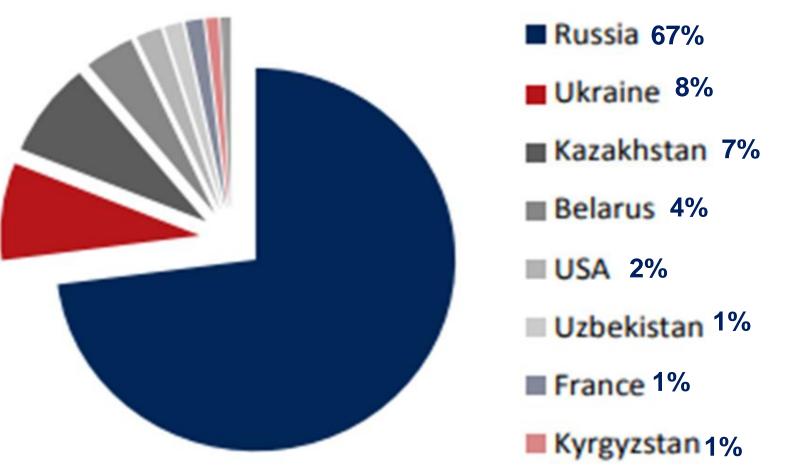


**Sources of transitions** 

## Google analytics for 2018 of Cochrane Russia web-site



Cochrane Russia website sessions and page views of 2018 as compared to 2016, 2017



Cochrane Russia website users in 2018 by country (total number of users – **22805**, increased from 12209 as compared to 2017)

#### User acquisition:

- 43,80% got to us from organic Search
- o 22,10% from social
- 18,90% from direct
- 15,10% from referral

#### Device use:

- o **52,1%** desktop
- 43,2% mobile
- o **4,7%** tablet

## **Machine Translation Quality Estimation**

(Google Translator vs DeepL Translator vs Microsoft Translator)

Research materials: 90 Cochrane

PLSs, published in the last 6 months.

On-line platform for evaluation:

Memsource translation management software.

Participants: 10 human translators
Analyses: Default, Post-editing 1,
Post-editing 2

#### Results of Default analysis

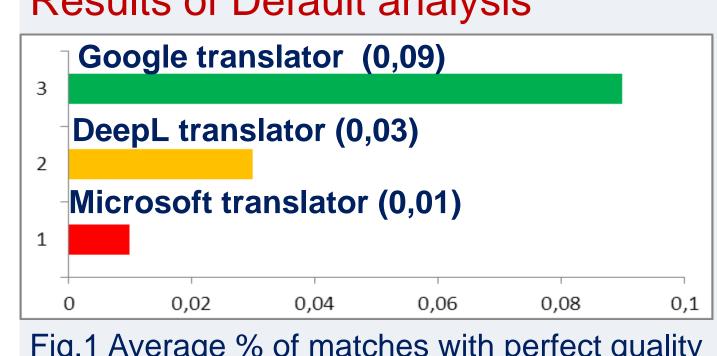


Fig.1 Average % of matches with perfect quality estimate

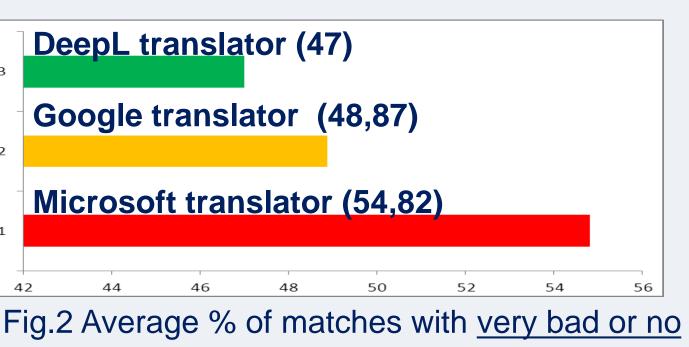


Fig.2 Average % of matches with <u>very bad or n</u> <u>quality</u> estimate

### Results of Post-editing-1 analysis

Google translator (17,82)

DeepL translator (12,95)



translation (most of the text edited)

## Results of Post-editing-2 analysis Google translator (11,2) DeepL translator (6,82) Microsoft translator (2,05)

Fig.5 Average % of matches with perfect translation (no edits made by translator)

translation (no edits made by translator)

Google translator (11,52)

DeepL translator (11,74)

Microsoft translator (34)

Fig.6 Average % of matches with very bad translation (most of the text edited)



# Diversity in communicating Cochrane evidence to diverse Russian-speaking audiences

