

Patient Recruitment Using Google, Facebook, TikTok & Co.: Does That Really Work?

Dr. Matthias Roos and Dr. Tobias Kruse | SubjectWell, Inc. (formerly Trials24 GmbH)

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This article is also available in German.

Healthcare has quietly undergone a seismic shift: patients are no longer getting their first answers from doctors, but from Google, Meta, TikTok, and, increasingly, AI tools like ChatGPT. This shift isn't just changing how people seek information; it's redefining where clinical trials can find participants. Buried within billions of daily searches and social interactions are vast numbers of "invisible patients" who never show up in site databases but are actively looking for help online. But how sizeable is the approach? Do online-recruited patients differ from the sites' own referrals? And what does the evidence say? This article explores whether clinical trials are overlooking these patients — and what happens when digital outreach for patient recruitment finally brings them to your clinical trial.

Reaching patients online: How sizeable is it really?

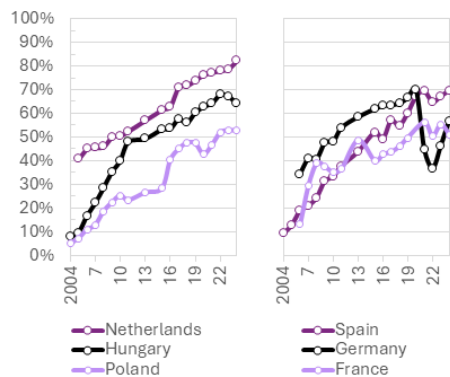
For decades, medical information reached patients primarily through in-person conversations with healthcare professionals (HCPs) or via traditional media channels such as print and television. With the rise of the internet, this landscape has fundamentally changed. Today, patients direct more health-related questions to Google than to doctors and pharmacists combined. This trend is amplified by the growing use of AI-generated content, including tools like OpenAI's ChatGPT, now ranked 4th among the top websites worldwide, after Google, YouTube, and Facebook, having overtaken Instagram, Reddit, and Wikipedia [1]. Data from Germany illustrates this shift. The country had the fourth-highest number of in-person doctor visits globally in 2023, averaging 9.7 consultations per person [2]. Community pharmacies handled another one billion patient interactions, equivalent to 12–13 touchpoints per individual annually [3]. Yet 70% of Germans search for health information online on

approximately 41 days per year, based on survey data showing an average of 3.37 search days per 30-day period among active seekers [4]. People turn to the internet more frequently than to physicians and pharmacists combined. Latest AI adoption trends are likely to reinforce this pattern: in 2024, 29% of people in the US and 42% in Europe had used AI [5], with continued strong growth in 2025 and beyond.

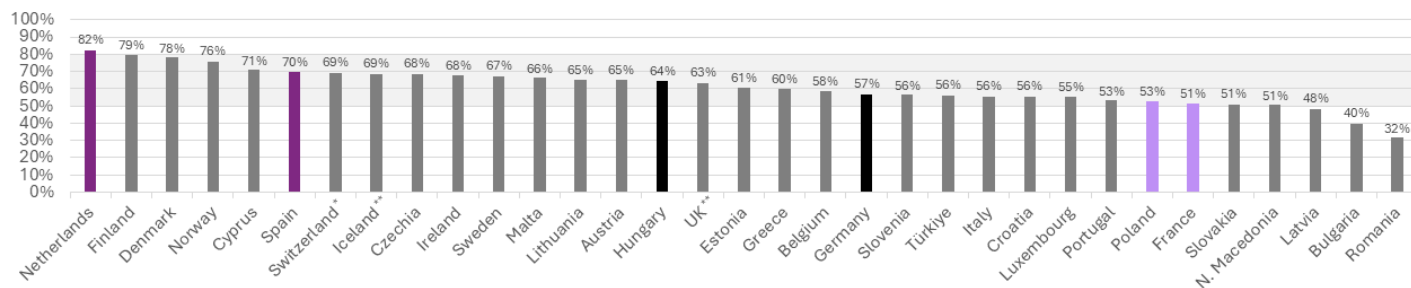
Figure 1a illustrates the dramatic rise in online health information seeking across six European countries. Over the last 20 years, between 50% and 75% of Europeans have become routine users of online health information; cf. **Figure 1b** [6]. The United States crossed 80% in 2017 [7], with health-related searches comprising roughly 5% of all internet queries [8]. Importantly, this behavior spans generations: among adults aged 65–74, online health information seeking remains high; for example, 50% in Germany, 52% in Hungary, and 72% in Denmark (see **Figure 1c**) [6]. People typically search to fill knowledge gaps regarding diagnoses and treatments [9], and self-

Online health information seeking

(a) Historic development 2004-24, by country



(b) Countries, 2024 (*2023, **2020)



(c) Age groups 2015/24, by country

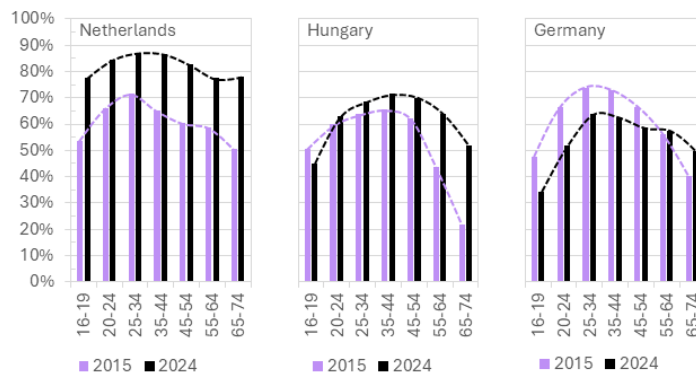


Figure 1. Share of residents in European countries seeking health information online. (a) Trends from 2004 to 2024 for Germany, France, Spain, the Netherlands, Hungary, and Poland; (b) rates across countries in 2024 (Switzerland: 2023; Iceland and the UK: 2020; highlighted countries match those in panel a); (c) rates by age group in the Netherlands, Hungary, and Germany in 2015 and 2024. Data: European Commission, Eurostat (2024) [6].

rated health status correlates with both frequency and diversity of searches [10].

This shift in behavior represents an unprecedented opportunity for clinical trial recruitment. With 5.35 billion internet users worldwide [11], the volume of health-related search activity enables access to vast patient populations. Online recruitment does not compete with traditional site-based methods; instead, it complements them by reaching individuals who are not already connected to clinical trial sites or healthcare networks. Despite this, adoption remains limited. In the Nordic region (often considered an early leader in decentralized and digitally enabled trials), only 15% of studies utilize social media or web-based recruitment tools. In contrast, 85% rely on site-based electronic health

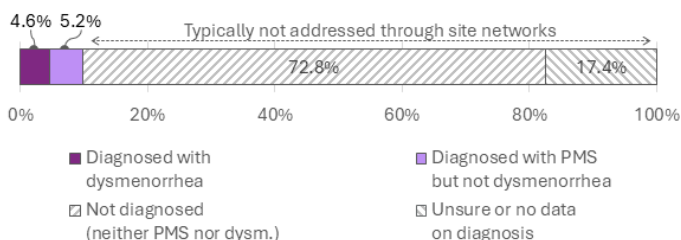
records, 26% on hospital referrals, and 18% on registries or biobanks [12]. These sources capture only those patients already known to the healthcare system, leaving a large population of “invisible patients” unserved.

Extending patient reach: Can we effectively engage “invisible” individuals — those who are not reached through sites?

No recruitment method reaches all individuals affected by a given condition. We refer to those who remain traditionally unreached as invisible patients: those without a formal diagnosis, individuals who avoid care due to stigma, populations historically underrepresented

Patient reach and characteristics: online compared to traditional outreach

(a) Dysmenorrhea patient reach, by diagnosis



(b) Key parameters of online and traditionally recruited patients

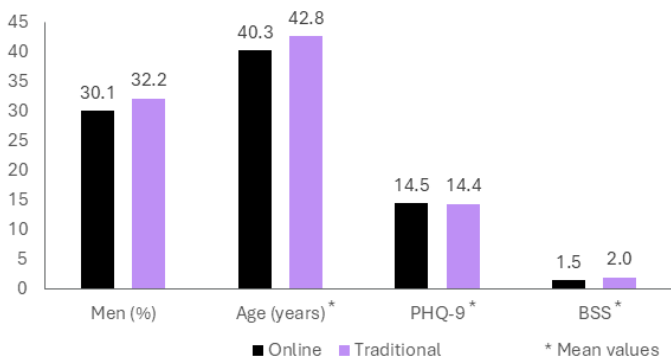


Figure 2. Patients reachable via online vs. site-based outreach. **(a)** Women affected by dysmenorrhea symptoms, reached through social media and search engines, by formal diagnosis status; **(b)** key characteristics of patients reached online versus through sites. Data reproduced from Roos et al. [13] and Haas et al. [14].

in research, patients with complex or overlapping symptoms, and people outside any clinical site network. Dysmenorrhea exemplifies this: the condition is common yet frequently underdiagnosed, influenced by stigma, and shaped by a longstanding underrepresentation of women in medical research. Using Google and Facebook campaigns, we reached more than 3,200 women affected by the condition across Germany, Austria, and Poland within two weeks. Fewer than 5% of those who reported significant symptoms had ever received a formal dysmenorrhea diagnosis [13]; see **Figure 2a**. In other words, 19 out of 20 affected women are “invisible patients”

Dropouts per question

Percentage of participants who stopped the survey, by number of people who saw the question, i.e., remaining participants

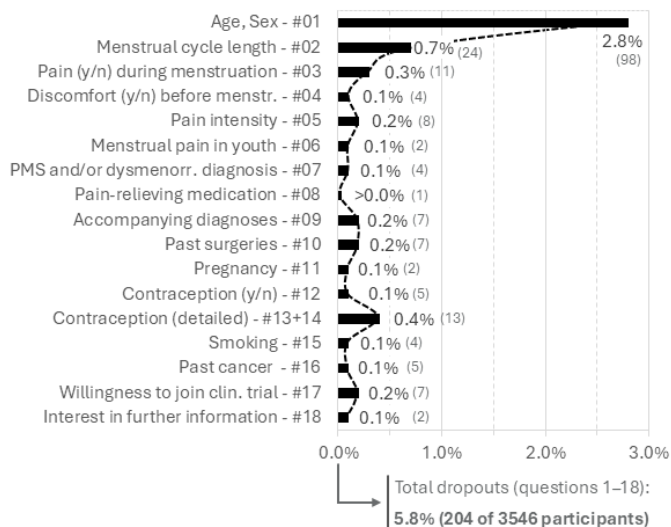


Figure 3. Dropout rates for each item of the 18-item dysmenorrhea questionnaire; items are ordered by the order of appearance in the patient questionnaire, with the first question at the top. Percentages are calculated based on the number of individuals who viewed each question; therefore, the denominator decreases as the questionnaire progresses. Values in brackets indicate absolute dropout numbers. Questions #13 and #14 were interdependent and are therefore analyzed as a single combined item. Data from Roos et al. [13]

and could not be reached through traditional site-based recruitment alone. Yet, they responded readily to online campaigns.

Patient profiles: Do online-recruited patients differ from the site’s own patients?

A common myth: patients recruited online are just different from those recruited traditionally. We recently investigated whether online recruitment attracts materially different patient populations using a study in individuals with depressive symptoms [14]. The results showed strong

alignment between online recruits and those referred by physicians or sites. Key demographic and clinical metrics were essentially identical (**Figure 2b**):

- **Gender distribution:** 2:1 female-to-male ratio in both cohorts (online vs. site-referred), consistent with depression epidemiology
- **Average age:** 40 (online) vs. 42 (traditional)
- **Depression severity (PHQ-9):** 14.5 vs. 14.4 (scale: 0–27)
- **Suicidality (Beck Suicide Scale):** 1.5 vs. 2.0 (scale: 0–38)

Platform selection influenced age reach (TikTok: 20–30 years; Instagram: 25–55; Facebook: 35–55; Google: 35–55) but did not meaningfully affect clinical presentation. These findings demonstrate that, with proper pre-screening (see below), digital recruitment yields clinically comparable populations to traditional methods.

Reducing site burden: How to refer only motivated and highly eligible patients rather than many unqualified ones?

While digital channels can reach extremely large populations, this scale creates a risk: funneling too many low-quality or non-eligible referrals to sites. This increases site burden at a time when clinical trial workload has intensified. Between 2009–2012 and 2017–2020, the average number of procedures per trial rose by 67% and procedures per visit by 22% [15]. Sites also face persistent staffing shortages [16; 17; 18].

We have found that a structured two-step prequalification process markedly improves referral-to-consent rates.

1. Advanced online prequalification

Contrary to the common belief that online screeners must be limited to 3–5 questions, well-designed longer screeners can maintain engagement. In our dysmenorrhea campaign, participants answered an 18-question screener, and 94% completed it [13]. Most drop-offs occurred at the first question (**Figure 3**); among those who answered the first question, 97% completed all items. Attrition per question after the third item was only 0.1–0.2%, except for a small dropout increase for questions related to contraception (0.4%, based on two interdependent questions). Completion rates showed no correlation with pain intensity. Importantly, the screener applied best practices in design, layout, and user experience.

2. Secondary phone screening

Three factors determine success:

- **Rapid follow-up:** Contacting candidates within hours (better: within 15 min, daytime provided) significantly increases the probability of reaching them [19; 20].
- **Empathy:** The phone screener is often the participant’s first real human touchpoint; inconsistent or unsupportive interactions can deter participation.
- **Structured evaluation:** Clear assessment of inclusion/exclusion criteria that do not require lab tests (while maintaining empathy) ensures referrals are site-ready.

Across 35,000 referrals spanning 32 studies in multiple therapeutic areas, incorporating secondary screening increased referral-to-consent rates by a factor of >7 (from 4% to 30%). This approach helps sites receive less but better-qualified referrals if done thoroughly.

Putting online campaigns into action: Which platforms and content to choose?

Search-based and social-based recruitment strategies operate differently and serve complementary purposes.

Search Engines (e.g., Google): Google reaches individuals actively seeking health information on a given indication, using keyword-targeted ads. Monthly search volumes (example: Germany) range widely, from 40,000–75,000+ for common conditions such as diabetes down to 4,000–15,000 for rare diseases like Duchenne Muscular Dystrophy (**Figure 4**). Indications with highly specific symptoms or unmet medical needs often perform particularly well in search channels.

Social Media (Meta, TikTok): Social media ads reach individuals not actively looking for information by appearing directly in their feeds. Targeting is based on behaviors, demographics, and interests. This approach is well suited for:

- high-prevalence conditions
- conditions with broad or non-specific symptoms
- patients with lower motivation to search independently

Testing both approaches early in, or prior to, a full-scale campaign provides valuable insight into reach feasibility and budget implications.

Campaign materials may include direct advertisements, an indication-specific or trial-specific website (“landing page”), patient or physician letters, and educational content. Content quality is the strongest predictor of credibility [21]. Supporting factors include clean website design, interactive features and reputation (perceived professional expertise) of the featured expert. Perceived trust varies with user characteristics such as age, gender, and health status [22].

Monthly Google search volume, JAN 2024

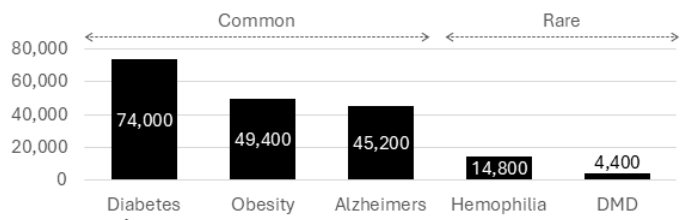


Figure 4. Google search volumes in Germany for common conditions (diabetes; obesity; Alzheimer’s) as compared to rare diseases (hemophilia; Duchenne muscular dystrophy, DMD). Each indication can combine several keywords. Data from JAN 2024.

Patient recruitment using Google, Facebook, TikTok & Co. does work!

As clinical trials grow more complex and patient pathways become increasingly digital, relying solely on traditional recruitment channels means leaving large portions of the eligible population untouched. The data is clear: People search for health information online more often than they interact with physicians, and digital outreach reliably uncovers vast groups of “invisible patients” who would never appear in site databases. At the same time, evidence shows that online recruits clinically match traditional referrals. With thoughtful prequalification, they can even reduce site burden. The opportunity is no longer hypothetical; it is measurable, scalable, and already reshaping recruitment success across therapeutic areas. Now is the moment for sponsors, CROs, and sites to move from sporadic experiments to strategic adoption. Trials that embrace digital recruitment today will reach more patients, diversify their populations, and accelerate timelines tomorrow. The question is no longer *if* digital recruitment works—but how quickly you are ready to adopt it as part of your strategy.

Correspondence:

Matthias Roos, SubjectWell, Sendlinger Str. 60, 80331 Munich, Germany; matthias.roos@subjectwell.com

Tobias Kruse, SubjectWell, Sendlinger Str. 60, 80331 Munich, Germany; tobias.kruse@subjectwell.com

About the authors



Dr. Matthias Roos holds a PhD in Physics and was a postdoctoral fellow at Massachusetts Institute of Technology (MIT) before transitioning from academia to business, with roles at McKinsey & Company and

Climedo Health, a clinical trial technology startup. He joined [SubjectWell](#) as Director of Scientific Affairs in 2025. His honors include the Ernst Award from the German Chemical Society, a research fellowship from the German National Academy of Sciences Leopoldina, and 16 peer-reviewed publications totaling 650+ citations.



Dr. Tobias Kruse is the Managing Director of Europe at [SubjectWell](#). He is the founder and former CEO of Trials24, which helped biotech, pharmaceutical companies and CROs accelerate patient recruit-

ment, before being acquired by SubjectWell in 2024. Prior to Trials24, he co-founded ImevaX, a biotech focused on vaccine development, and earned a PhD in Molecular Biotechnology from the Technical University of Munich. He holds numerous patents and has published in journals including Nature, EMBO, and JMIR.

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