

JUMO HEALTH WHITE PAPER

The operating system patients already understand.

Clinical trials ask people to navigate a high-stakes experience through systems built primarily for operations. The world's most intuitive consumer platforms have solved parallel experience problems: relevance, comprehension, onboarding, navigation, handoff, return, and prediction. PRISM applies those principles to patient readiness without reducing participation to a consumer transaction.

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Executive summary.

Patient readiness is easier to understand when the system behind it is described through experiences people already know. Spotify demonstrates relevance. Duolingo demonstrates progressive comprehension. Apple demonstrates confident onboarding. Uber demonstrates next-step certainty. Amazon demonstrates low-friction handoff. Netflix demonstrates sustained relevance. Tesla demonstrates continuous telemetry. Each analogy clarifies one PRISM capability. Together, they explain why PRISM operates as a connected readiness system rather than a collection of recruitment tools.

Patients do not experience a clinical trial as a workflow. They experience a sequence of decisions, uncertainties, obligations, and moments when participation either becomes clearer or harder to sustain.

Clinical trial infrastructure tends to describe that journey in operational terms: identify, contact, screen, consent, enroll, retain. Those terms are necessary, but they obscure the human work required at every transition. The patient must recognize relevance, understand complexity, decide with confidence, know what happens next, arrive prepared, remain supported, and continue through changing conditions.

The strongest consumer experiences are designed around these same human needs. They reduce cognitive effort, personalize what matters, show the next step, and learn from behavior. Clinical trials carry far greater ethical and clinical responsibility than any consumer product, but the underlying experience principles remain useful.

Patients should never need to decode the system in order to participate in it.

Seven familiar experiences. One readiness operating system.

No individual analogy explains PRISM. The value appears when the seven principles are connected across the patient journey.

Relevance beats reach.

Spotify does not make discovery useful by presenting every song to every listener. It learns patterns, context, and preferences, then surfaces a smaller set of options that are more likely to matter. The value is not access to more music. The value is relevance.

Clinical trial recruitment often works in the opposite direction. Large eligible populations are treated as inherently valuable, even when the resulting lists contain weak clinical fit, limited access feasibility, little behavioral context, and no indication that participation can hold. More names create more work without

necessarily creating more completers.

PRISM connects real-world clinical data, protocol criteria, site and HCP intelligence, social determinants, and behavioral signals to identify patient clusters with stronger potential to advance. Discovery becomes a precision question: not merely who might qualify, but where clinical fit and participation conditions align.

Use behavioral and contextual signals to increase relevance.

Volume creates noise, site burden, and false confidence in funnel health.

Prioritize eligible patient clusters using clinical, access, social, and readiness intelligence.

Where the analogy stops: PRISM does not recommend healthcare choices or decide whether a patient should participate. It helps sponsors and sites find relevant populations and understand the conditions likely to shape advancement.

Understanding is built progressively.

Duolingo does not teach a new language by presenting the entire grammar system at once. It breaks complexity into manageable units, checks understanding, reinforces important concepts, and adjusts the learning path as the user progresses.

Clinical trials have a language of their own: randomization, placebo, washout, biopsy, adverse events, visit windows, protocol amendments, and uncertainty. Patients are often asked to absorb this language through dense documents at the moment they are also managing a diagnosis, evaluating risk, and deciding whether participation fits their life.

PRISM converts protocol complexity into plain-language, stage-appropriate learning. It uses short explanations, guided questions, repetition, multimodal formats, and comprehension signals to strengthen understanding over time. Education becomes a process rather than a document transfer.

Sequence complexity, reinforce understanding, and let progress shape what comes next.

Information is delivered once, compressed into consent, and mistaken for comprehension.

Translate the protocol into adaptive education that prepares patients and caregivers before and during participation.

A yes is only the beginning of onboarding.

Apple onboarding is designed so a person can move from purchase to confident use without having to discover every requirement alone. Setup is sequenced. Choices are explained. Privacy and preferences are addressed. Progress is visible. The experience converts willingness into usable readiness.

Trials frequently treat interest, consent, or eligibility as evidence that onboarding has already occurred. But a patient can say yes while remaining emotionally uncertain, cognitively overloaded, logistically unprepared, or dependent on a caregiver who has not been included.

PRISM evaluates readiness across structural, cognitive, emotional, and behavioral conditions. It identifies unresolved friction, aligns expectations, prepares support networks, and determines what must be addressed before the patient advances. Activation becomes a governed transition rather than a conversion event.

Turn intent into confident action through guided setup.

Consent is treated as proof that the patient understands and can sustain participation.

Assess readiness, surface friction, and prepare the patient for the lived reality of the protocol.

Uncertainty falls when the next step is visible.

Uber does more than connect a rider and driver. It makes the journey legible. The user can see who is coming, where the vehicle is, how long arrival should take, what to do next, and when the trip is complete. The system reduces uncertainty continuously.

Trial participants often encounter the opposite experience. Visit expectations are unclear. Timing changes. Questions emerge outside site hours. Patients do not know whether someone received their message, what preparation is required, or what happens after the current step. Each gap consumes trust.

PRISM supports patients with timely reminders, visit preparation, next-step guidance, question resolution, and escalation when human support is required. It maintains a continuous feedback loop so silence does not become disengagement.

Make status, timing, ownership, and the next action continuously visible.

Operational uncertainty accumulates as emotional and behavioral friction.

Guide patients through screening and participation with clear, timely, stage-specific support.

Handoff quality determines whether momentum survives.

Amazon's checkout experience removes avoidable friction at the exact moment intent must become action. Information is complete, the next step is explicit, and the transaction does not require the customer to restart the process.

A conventional trial referral often does require a restart. The site receives a name, contact information, and perhaps eligibility responses. The patient arrives with unanswered questions, inconsistent expectations, incomplete practical preparation, and no shared readiness context. The site must recreate the journey under time pressure.

PRISM supports guided prescreening and transfers better-prepared patients with a structured readiness handoff. The site can see what the patient understands, what remains unresolved, what support may be required, and where the next conversation should begin.

Preserve context and remove unnecessary repetition at conversion.

Sites inherit incomplete information and absorb upstream education and expectation repair.

Advance qualified, educated patients with readiness context that supports a productive site conversation.

Relevance must continue after enrollment.

Netflix sustains engagement by learning from behavior and maintaining a relevant experience over time. The platform changes what it surfaces as interests, timing, and patterns evolve. It does not assume that the reason someone started watching will be enough to keep them returning.

Clinical trials often assume the opposite. Once a patient enrolls, communication becomes standardized and operational. Yet readiness changes. Treatment experience diverges from expectations. Visit burden accumulates. Caregiver capacity shifts. Questions that were unimportant at consent become decisive months later.

PRISM uses ongoing interactions, micro-support, comprehension checks, emotional signals, and burden indicators to adapt the readiness experience across the study. The objective is not to make participation “sticky.” It is to keep participation informed, supported, and realistically sustainable.

Use changing behavior to keep the experience relevant over time.

Retention support remains generic while patient needs and burden evolve.

Reinforce understanding, detect readiness decay, and trigger targeted support throughout participation.

Instrument the journey before failure appears.

Tesla vehicles generate continuous telemetry about system conditions and performance. The useful idea is not autonomous driving. It is instrumentation: detecting changes early enough to inform the next action instead of waiting for a visible failure.

Most trial metrics are retrospective. Monthly enrollment reports, screen-failure summaries, missed-visit counts, and withdrawal reports describe what already happened. They provide limited visibility into the deteriorating comprehension, burden, confidence, or support conditions that preceded the outcome.

PRISM tracks readiness, informed engagement, progression quality, friction, and completion-risk signals as the study runs. It gives study teams an earlier view of where instability is forming and which intervention may be warranted.

Use continuous system signals to anticipate and respond before failure.

Retrospective dashboards identify consequences after recovery becomes expensive.

Surface live readiness and execution signals that support earlier, more precise intervention.

Where the analogy stops: PRISM supports human decision-making. It does not autonomously make clinical decisions, replace site judgment, or guarantee individual patient behavior.

The value is the closed loop.

Each layer improves the next. Discovery informs segmentation. Segmentation shapes education. Education produces comprehension and behavioral signals. Those signals inform readiness assessment, next-step orchestration, site handoff, ongoing support, and risk detection. What the system learns during execution improves future decisions.

Why this qualifies as an operating system.

A collection of point solutions may touch several moments in the journey. An operating system connects them with shared logic, continuous data, defined transitions, and accountability for progression.

PRISM connects patient identification, readiness assessment, education, prescreening, orchestration, site handoff, retention support, and execution measurement. The purpose is not to move patients through a funnel faster. The purpose is to determine whether the next step is justified, what preparation it requires, and how readiness should be protected after advancement.

Recruitment creates movement.

Readiness governance creates durable progression.

What sponsors should take from the analogies.

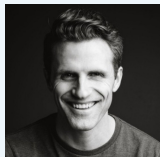
- 1 **Discovery:** Judge patient sources by relevance and productive progression, not raw volume.
- 1 **Education:** Build comprehension in stages instead of compressing education into consent.
- 1 **Activation:** Treat emotional, practical, cognitive, and caregiver preparation as onboarding requirements.
- 1 **Navigation:** Make timing, status, ownership, and next steps visible throughout the journey.
- 1 **Handoff:** Transfer readiness context to sites so the patient does not have to begin again.
- 1 **Retention:** Adapt support as burden, experience, and personal conditions change.
- 1 **Intelligence:** Measure the conditions that precede failure while intervention is still possible.

The standard patients bring with them.

Patients already live in a world where digital systems learn what is relevant, explain unfamiliar tasks progressively, guide the next step, preserve context, and adapt over time. They do not expect a clinical trial to feel like a music app, language lesson, phone setup, ride, checkout, streaming service, or connected vehicle.

They do expect clarity. They expect acknowledgment. They expect the system to remember what they already shared. They expect help before they become lost. And when the decision is medically serious and personally demanding, those expectations become more important - not less.

PRISM applies the best of modern experience design to the clinical discipline of patient readiness. The result is a system built to find the right patients, prepare them for a real decision, support sites with better context, and protect participation through completion.

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Andy is a social and health psychologist and mixed-methods researcher whose work examines social connection, health behavior, psychophysiology, and human interaction with AI. At Jumo, he translates cognitive, emotional, social, and practical friction into experiences and interventions designed to support durable participation.

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