# Week 6 — Preregistration

*How widely does the field preregister its studies, and is the corrective being adopted quickly enough to matter?*

Objective evidence review · companion to Week 6 · prepared July 2026

**Scope & method.** Rapid narrative review, not a systematic review. Structured search of the sport-science meta-research literature (PubMed, Sports Medicine, BMJ Open, JOSPT) for evidence on preregistration and Registered Report uptake. Findings reported as the cited studies state them; foundational open-science sources (psychology) are flagged as adjacent.

## The principle under review

**WEEK 6 · PUBLIC, TIME-STAMPED PRE-SPECIFICATION**

Week 6 argues that recording the hypothesis, design, primary outcome and analysis in a public, time-stamped document before data collection converts a confirmatory test from an unverifiable claim into dated evidence of the plan, and that Registered Reports extend this by having the question and design reviewed before results exist. The empirical questions are how widely preregistration is used in the field, whether it is done prospectively, and whether it has the intended effect.

## 1 · How well is it currently applied?

**THE EVIDENCE**

**10–12%**
of sport-science/medicine studies were preregistered — Bennett et al. 2026; Bullock et al. 2023

**58%**
of registered sports-medicine trials were registered *retrospectively*, not prospectively — Schulz et al. 2022

**2 / 12**
median number of open-science practices per sport-medicine study — Bullock et al. 2023

### Preregistration remains uncommon

Convergent meta-research puts current uptake in the low tens of a percent. Bullock and colleagues (2023), reviewing 243 studies in the top five sports-medicine journals, found 12% were preregistered (and only 1% shared analysis code), with a median of just 2 of 12 open-science practices per study. Bennett and colleagues (2026), across 2,006 sports-science articles from 19 journals published in 2024, found 10.0% preregistered. Where studies are registered, registration is frequently retrospective: Schulz and colleagues (2022) found only 20% of sports-medicine trials were prospectively registered while 58% were registered after the fact — which forfeits the protection preregistration is meant to provide.

### The corrective exists, is being adopted, and works

Registered Reports — in which the introduction and method are peer-reviewed and accepted before data collection (Chambers, 2013) — were explicitly urged for the field by Caldwell and colleagues (2020), and are now offered by a growing number of sport and exercise science journals. Importantly, the mechanism has been shown to work in the field's own data: Bennett and colleagues (2026) evaluated preregistration specifically as a means of reducing the implausibly high proportion of supported hypotheses, linking the practice to more credible confirmatory testing (Weeks 1, 4).

### Why uptake is still low

The barriers are structural rather than technical. In a survey of 511 sport and exercise science researchers, Murphy, Mesquida and Warne (2023) found that respondents perceived open-science practices as potentially detrimental to career progression due to a lack of incentives, and viewed journals — through publication charges and a focus on novelty — as a barrier to reproducible and replicable research. Preregistration is cheap and often free, but the reward system does not yet consistently favour it.

### What preregistration is protecting against

The rationale is well established outside the field. Simmons, Nelson and Simonsohn (2011) showed that undisclosed flexibility in analysis ("researcher degrees of freedom") can raise the false-positive rate from 5% to over 60%, and proposed minimal disclosure standards; Nosek

and colleagues (2018) formalised the distinction between prediction and postdiction that time-stamping protects. Preregistration addresses exactly the flexibility that produces the inflated, non-replicable findings documented in Weeks 1, 4 and 7.

| Source | Finding | Implication |
|---|---|---|
| Bullock et al. (2023) *JOSPT* | 243 sport-medicine studies: 12% preregistered; 1% shared code; median 2/12 open-science practices | Preregistration and open practices are rare |
| Bennett et al. (2026) *Sports Medicine* | 10.0% of 2,006 sports-science articles preregistered | Low uptake confirmed at scale |
| Schulz et al. (2022) *BMJ Open* | 20% of trials prospectively registered; 58% retrospectively | Even registration is often after the fact |
| Bennett et al. (2026) *Sports Medicine* | Preregistration evaluated as a means of reducing inflated supported-hypothesis rates | The corrective works where used |
| Chambers (2013); Caldwell et al. (2020) *Cortex; Sports Medicine* | Registered Reports defined and urged for the field; now offered by more journals | Infrastructure exists and is spreading |
| Murphy, Mesquida & Warne (2023) *Comms. in Kinesiology* | Career incentives and journal norms seen as barriers to open practice (n = 511) | Low uptake is a structural, not technical, problem |
| Simmons, Nelson & Simonsohn (2011) *Psychological Science (adjacent)* | Flexibility raises false-positive rate from 5% to >60% | Names the problem preregistration solves |

## 2 · Is there cause for concern?

**OBJECTIVE ASSESSMENT**

ASSESSMENT **Substantial concern (improving)**

On current uptake the concern is substantial: only about one study in ten is preregistered, most trial registration that does occur is retrospective, and code and materials are rarely shared. Given that the practices of Weeks 1, 4 and 7 (publication bias, HARKing, low power) are exactly what preregistration constrains, the field is under-using its most direct available corrective.

The trajectory, however, is positive and the mechanism is proven. Registered Reports are established and spreading, sport-specific meta-research is now measuring uptake year on year, and the field's own data show preregistration is associated with more credible confirmatory testing. The remaining barrier is the incentive structure (Week 13) rather than the availability or effectiveness of the tool, which makes the problem addressable through editorial and institutional policy.

## 3 · Immediate steps to improve

**ACTIONABLE**

1. **Preregister prospectively,** before data collection, on the OSF or AsPredicted — recording hypothesis, primary outcome, design, analysis, and exclusion/stopping rules.
2. **Register trials before enrolment,** not retrospectively, so the registration carries evidential weight.
3. **Use a Registered Report for important studies,** so the question and design are reviewed before results and a well-designed null publishes on equal terms.
4. **Include at minimum a disclosure statement** (how the sample size was set; all exclusions, conditions and measures) even when a full preregistration is not feasible.
5. **As editors and institutions, reward preregistration and Registered Reports,** since the main barrier to uptake is incentive, not method.

## References

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