ROIDCheck: Reducing illicit steROID harms through the first ever enhancement drug CHECKing service

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Introduction: *Illicit markets for image and performance enhancing drugs (IPEDs), particularly anabolic-androgenic steroids (AAS), are characterised by product mislabelling and poor dose accuracy, with limited access to drug checking or tailored health interventions. This study examined behavioural responses following delivery of the world's first individualised IPED checking service combined with a health intervention (ROIDCheck).*

Methods: *A two-phase sequential observational study was conducted in Queensland, Australia (December 2024–December 2025). Fifty IPED consumers submitted IPED samples and received individualised laboratory testing results and a peer-delivered health intervention; 25 completed follow-up surveys. Outcomes were compared with a group accessing community-level aggregated results only (n=63). Chemical analyses were conducted using liquid chromatography–mass spectrometry. Behavioural outcomes were assessed via self-report and analysed using exact logistic regression, adjusting for healthcare access barriers.*

Results: *A total of 171 samples were analysed. Market instability was evident, with 15.2% of samples mislabelled and only 9.6% of quantifiable samples accurately dosed (±5%). Participants receiving ROIDCheck had significantly greater odds of modifying AAS use compared to the comparison group (91.3% vs 46.3%; AOR=10.10, p=.002). This included higher likelihood of reconsidering compound number, dosage, sourcing, and testing behaviours (all p<.05).*

Discussions and Conclusions: *Individualised IPED checking combined with a tailored health intervention was associated with substantial self-reported health behaviour change. These findings indicate that providing personalised chemical verification alongside tailored advice can meaningfully influence decision-making in otherwise hard-to-reach populations.*

Implications on communities, practice, policy: *ROIDCheck demonstrates a scalable model for integrating individualised drug checking within health services. Embedding*

ROIDCheck in all drug checking services may strengthen engagement, improve safer use practices, and address inequities in access for people who use IPEDs.

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