Appendix 1. Data Sources Reviewed for Inclusion

Source	Sample	Geographic Coverage[1]	Distinguishes opioid type[2]	Distinguishes opioid brand	Comments
Annual/Repeated Data Collections					
National Drug Strategy Household Survey (NDSHS)	Population	National and all states/territories	Yes	No	
National Survey of Mental Health and Wellbeing (NSMHWB)	Population	National and all states/territories	No	No	
Wastewater data	Population	National and all states/territories	Yes	No	
Ecstasy and Related Drug Reporting System (EDRS) interviews	High-risk sentinel	National and all states/territories	Yes	No	
Illicit Drug Reporting System (IDRS) interviews	High-risk sentinel	National and all states/territories	Yes	Yes	Gives opioid type, strength and brand, and includes OTC codeine. Data available from 2017 only
Drug Use Monitoring in Australia (DUMA)	High-risk sentinel	NSW, QLD, SA, WA	Yes	No	
Australian NSP survey	High-risk sentinel	National and all states/territories	Yes	No	
Women and Sexual Health Survey (SWASH)	High-risk sentinel	NSW and WA	No	No	
Gay Community Periodic Survey	High-risk sentinel	SA, ACT, VIC, WA, QLD, NSW, TAS	No	No	
Sales and Dispensing Data Collections					
Prescription sales data	Population	National and all states/territories	Yes	Yes	Gives opioid type, strength and brand, and includes OTC codeine
Pharmaceutical Benefits Scheme	Population	National and all states/territories	Yes	Depends on the opioid type/dose	Item codes for pharmaceutical opioids (the unit by which data can be extracted) do not differentiate by brand where multiple brands offer products of the same strength (e.g., four different brands of morphine products fall under item code '1653B: morphine sulfate 10mg modified release tablet') [30]. Further, only medicines contained in the Schedule of Pharmaceutical Benefits appear in these statistics (excluding over-the-counter codeine), and SRF tapentadol was only listed on the Schedule two years post-introduction (in 2013).
Medicare Benefits Scheme	Population	National and all states/territories	No	No	
Administrative Data Collections					
Poison Information Centre call data	Population	All states/territories	Yes	Yes	Gives opioid type, strength and brand where these characteristics can be identified by the caller, and includes OTC codeine
Ambulance data collections	Population	All states/territories	No	No	
Emergency department data collections	Population	All states/territories	Depends on the coding system	No	
Admitted patient data collections	Population	National and all states/territories	No	No	
Mortality data	Population	National and all states/territories	No	No	
Mental health ambulatory data collections	Population	NSW, VIC, TAS, WA	No	No	
Alcohol and drug treatment helpline calls	Population	All states/territories	Depends on the coding system	No	
Needle-syringe programme data	High-risk sentinel	National and all states/territories	Depends on the coding system	No	
Medically-supervised injecting clinic data	High-risk sentinel	NSW	Depends on the coding system	No	
Prescription monitoring programme data	High-risk sentinel	TAS	Yes	Yes	Incomplete coverage with continued implementation of the programme, with voluntary opt in by pharmacists and

					general practitioners, and no requirement for use for every dispensing episode.
Pharmacotherapy program data	Population	National and all states/territories	Yes	No	
Alcohol and drug treatment services data	Population	National and all states/territories	Yes	No	
Arrest data	Population	National and all states/territories	Yes	No	
Seizure data	Population	National and all states/territories	Yes	No	
Street price data	Population	National and all states/territories	Yes	No	
Criminal court data	Population	National and all states/territories	Yes	No	
Online Monitoring					
Online marketplace monitoring	High-risk sentinel	National	Yes	Yes	Gives opioid brand/dose for sale on online marketplaces. Data is only available from early 2013.

Note. [1] National: collated and reported at national level only; National and all states/territories: collated and reported at national and state/territory-level; All states/territories: collated and reported at the state/territory level only. [2] Distinguishes between types of opioids (e.g., morphine and oxycodone). NSW: New South Wales; QLD: Queensland; SA: South Australia; WA: Western Australia; TAS: Tasmania; Australian Capital Territory; VIC: Victoria.