Sexual Health

Supplementary Material

The provision of sexual and reproductive health information and services to travellers: an exploratory survey of Australian travel medicine clinicians

Sarah Warzywoda^{A,*}, James A. Fowler^A, Joe Debattista^B, Deborah J. Mills^{C,D}, Luis Furuya-Kanamori^D, Jo Durham^E, Colleen L. Lau^D, Amy B. Mullens^F, Satrio Nindyo Istiko^A, Carlos Santaolaya^A, Juhi Malhotra^A, and Judith A. Dean^A

^ASchool of Public Health, Faculty of Medicine, The University of Queensland, Brisbane, Qld, Australia.

^BMetro North Public Health Unit, Metro North Hospital and Health Service, Windsor, Qld, Australia.

^cDr Deb The Travel Doctor, Travel Medicine Alliance, Brisbane, Qld, Australia.

^DUQ Centre for Clinical Research, Faculty of Medicine, The University of Queensland, Herston, Qld, Australia.

^ESchool of Public Health and Social Work, Australian Centre for Health Services Innovation (AusHSI), Centre for Healthcare Transformation, Faculty of Health Queensland University of Technology, Kelvin Grove, Qld, Australia.

^FSchool of Psychology and Wellbeing, Centre for Health Research, Institute for Resilient Regions, University of Southern Queensland, Ipswich, Qld, Australia.

*Correspondence to: Sarah Warzywoda School of Public Health, Faculty of Medicine, The University of Queensland, Brisbane, Qld, Australia Email: s.warzywoda@uq.edu.au

	Section 1: Tell us a little about yourself
1) What is y	your age? (In years)
2) What is y	your gender?
3) What is t	the postcode of your practice?
4) What is	your role? (please tick all that apply)
	Doctor
	Nurse Practitioner
	Registered Nurse
	Enrolled Nurse
	Other (please specify)
5) What typ	pe of practice do you work in? (please tick all that apply)
	Dedicated Travel Medicine Clinic
	General Practice
	Hospital Based Clinic
	Other (please specify)
6) What is y	your Medical / Nursing / Health Specialisation?
7) Are you	a member of the International Society of Travel Medicine?
	Yes
	No
8) How man	ny years have you practiced Medicine/Nursing/Health?
9) How man	ny years have you been involved in travel medicine?
10) Please l	ist what qualifications you have specify to travel medicine (please tick all that apply)
	ISTM certificate of knowledge
	Master of Public Health

	Master Public Health / Tropical Medicine
	Monash Travel Medicine Course
	Diploma Travel Medicine
	Other (please specify)
11) Prior to per week?	the COVID-19 pandemic (2020) on average how many travel patients were you seeing
	Section 2: Tell us a little about your work in sexual health
	vey, a Travel Patient is any patient who presents to your service with the intention of travelling lly for the purposes of recreation, work, or study, or has recently returned from international
	at basis would you decide whether a patient was at risk for Sexually Transmissible (STI)? (please tick all that apply)
	I conduct a sexual history / STI risk assessment on every travel patient
	Age
	Country travelling to or from
	Purpose of travel
	Identified risk behaviour
	Ethnicity
	HIV status
	Only if they raise the issue first
	I never do an STI risk assessment on my travel patients
	Other (please specify)
13) On that ap	what basis do you offer STI testing to your patients prior to departure? (please tick all oply)
	I offer an STI test to every travel patient prior to departure
	If they were symptomatic
	If the patient requested
	The patient's age (e.g., young people under 30 years)
	Only if the patient is single (not in a relationship)
	The patient's risk assessment history
П	Based on discussion regarding contraception

	If the patient is travelling to a high-risk country
	Nature of travel (e.g., work, study, leisure)
	I never offer STI testing to my travel patients prior to departure
	Other (please specify)
	at basis would you provide information/advice/counselling on sexual & reproductive H) to your travel patient prior to departure? (please tick all that apply)
	I don't provide SRH information/advice/counselling to any travel patients prior to departure
	I always offer SRH information as part of pre-travel advice
	As part of STI screen
	When the patient asks questions
	If patients assessed at higher risk based on patient's history
	As part of a discussion regarding contraception
	Age
	Travelling to a high-risk country
	Nature of travel (e.g., work, study, leisure)
	Other (please specify)
15) When d	liscussing SRH with travel patients, do you (please tick all that apply)
	I don't provide SRH information/advice/counselling to any travel patients prior to departure
	Direct them to online materials
	Provide written materials
	Discuss the importance of safer sex
	Discuss the importance of regular STI testing
	Provide condoms and lubricant
	Discuss the importance of STI testing on return
	Discuss safe injecting behaviour
	Discuss Post Exposure Prophylaxis (PEP) in case of HIV exposure
	Discuss HIV Pre Exposure Prophylaxis (PrEP)
	Discuss emergency contraception
	Discuss ongoing contraception options
	Other (please specify)

16) On what basis do you offer STI testing to travel patents on their return from international travel? (please tick all that apply)

	I do not see returning travellers
	I would not offer STI testing
	If they were symptomatic
	If the patient requested
	The patient's age (e.g., young people under 30 years)
	The patient's risk history
	Only if they had an STI test before they left
	Only if they had been to a high-risk country
	Nature of travel (e.g., work, study, leisure)
	Other (please specify)
	onducting an asymptomatic STI screen, which of the following tests would you? (please tick all that apply)
	Urine
	Pharyngeal swab
	Rectal swab
	Cervical/high vaginal swab
	Blood test
18) Which is apply)	infections would you test for as part of an asymptomatic STI screen? (please tick all that
	Chlamydia
	Gonorrhoea
	Syphilis
	HIV
	HBV
	HCV
	HPV/cervical screen
	HSV
	Trichomoniasis
	Other (please specify)
19) When c	onsulted by a symptomatic patient, would you usually (please tick all that apply)
	Test and treat immediately (presumptive treatment)
	Treat immediately and not test

	Test and wait for results before treating
	Refer to a specialist (in sexual health or infectious disease)
	Refer to a sexual health clinic
	Other (please specify)
20) When c	onducting an STI screen, would you: (please tick all that apply)
	Collect the specimens within the clinic
	Refer the patient to a sexual health clinic
	Send the patient to a laboratory collection site 1.
	ssistance would you provide a travel patient diagnosed with an STI to contact other ontact tracing) (please tick all that apply)
	I don't provide any assistance
	Provide verbal advice for the patient to contact partners themselves
	Provide written advice for the patient to contact partners themselves
	Refer the patient to a contract tracing website (e.g., Let Them Know, Drama Downunder)
	I would do it on behalf of the patient
	Assume Public Health will do this automatically
	Other (please specify)
22) Who do tick all that	you discuss HIV Post Exposure Prophylaxis (PEP) with before they leave? (please apply)
	I never discuss PEP with my travel patients before travel
	Health workers
	Health students
	Male travel patient disclosing intention to have sex with men
	Other (please specify)
23) Who do tick all that	you discuss HIV Pre Exposure Prophylaxis (PrEP) with before they leave? (please apply)
	I never discuss PrEP with my travel patients before travel
	A health worker

\Box A health student				
☐ Male travel patient dis	sclosing intention to h	ave sex with me	n	
☐ Other (please specify)				
Where would you seek profes stact tracing? (please tick all t		ling SRH, STI/E	BBV testing, trea	tment, and
☐ Other colleagues with	in the practice			
☐ Local sexual health cl	inic			
☐ National STI guideline	es			
☐ Professional websites	(e.g., ASHM)			
☐ Search the internet (e.	g., Google)			
☐ Other text books				
☐ Other (please specify)				
1 2	3	4	5	
1 2	3	4	5	-
Can you identify any particul			ng? (please tick	nterested in
Can you identify any particul Conducting a sexual history			ng? (please tick	nterested in
Can you identify any particul Conducting a sexual history Conducting STI testing	lar areas of interest f		ng? (please tick	nterested in nore trainin
Can you identify any particul Conducting a sexual history Conducting STI testing Providing advice and information	lar areas of interest f		ng? (please tick	nterested in nore trainin
Can you identify any particul Conducting a sexual history Conducting STI testing Providing advice and information of the second of the seco	lar areas of interest f		ng? (please tick	nterested in nore trainin
Can you identify any particul Conducting a sexual history Conducting STI testing Providing advice and information of the second of the seco	lar areas of interest faction on safe sex	for future traini	ng? (please tick	nterested in nore training
Can you identify any particul Conducting a sexual history Conducting STI testing Providing advice and information of the second contact tracing (particular advising a patient about contact tracing a patient about contact tracing (particular advising a patient about contact tracing a patient a pa	lar areas of interest faction on safe sex	for future traini	ng? (please tick	nterested in nore training
Can you identify any particul Conducting a sexual history Conducting STI testing Providing advice and informate Treating STIs Conducting contact tracing (particular advising a patient about contact Recalling a patient for follows)	lar areas of interest faction on safe sex partner notification) tact tracing (partner noting)	f or future traini	ng? (please tick	nterested in nore training
Can you identify any particular Conducting a sexual history Conducting STI testing Providing advice and information Treating STIs Conducting contact tracing (particular advising a patient about contact Recalling a patient for follow Providing advice and informations.)	lar areas of interest faction on safe sex partner notification) tact tracing (partner nown testing) ation on contraception	f or future traini	ng? (please tick	nterested in nore training
Can you identify any particular Conducting a sexual history Conducting STI testing Providing advice and information Treating STIs Conducting contact tracing (particular advising a patient about contact Recalling a patient for follow Providing advice and information or prescribing or all contraceptions.	lar areas of interest faction on safe sex partner notification) tact tracing (partner nown testing tation on contraception	f or future traini otification)	ng? (please tick	nterested in nore training
Can you identify any particular Conducting a sexual history Conducting STI testing Providing advice and information Treating STIs Conducting contact tracing (particular advising a patient about contact Recalling a patient for follow Providing advice and information Prescribing oral contraception Providing Long-Acting Reversible	lar areas of interest faction on safe sex partner notification) tact tracing (partner nown testing tation on contraception	f or future traini otification)	ng? (please tick	nterested in nore training
Can you identify any particular Conducting a sexual history Conducting STI testing Providing advice and information Treating STIs Conducting contact tracing (particular advising a patient about contact Recalling a patient for follow Providing advice and information or prescribing or all contraceptions.	lar areas of interest faction on safe sex partner notification) tact tracing (partner nown testing tation on contraception	f or future traini otification)	ng? (please tick	nterested in nore training

Other areas not interested (please detail below)	
Conducting pregnancy options counselling	
Advising on Emergency Contraception	
Advising on PEP	

Thank you very much for your time spent completing this survey – please seal your completed survey in the provide unmarked envelope and return to one of the researchers.

For further training and support in the diagnosis and treatment of sexually transmissible infections and blood borne viruses, visit the ASHM website https://www.ashm.org.au/

STROBE Statement—checklist of items that should be included in reports of observational studies

	Item No.	Recommendation	Page No.	Relevant text from manuscript
Title and abstract	1	(a) Indicate the study's design with a commonly used term in the title or the abstract	2	cross-sectional survey
		(b) Provide in the abstract an informative and balanced summary of what was done and what was found	2	Included in the abstract (page 2)
Introduction				
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported	3-4	Included in the background section (pages 3-4)
Objectives	3	State specific objectives, including any prespecified hypotheses	4	explore how travel medicine clinicians integrate SRH services into clinical practice
Methods				
Study design	4	Present key elements of study design early in the paper	5	 cross-sectional study used a structured survey, developed by a team of researchers, community service providers and travel medicine clinicians in Queensland, Australia. An initial open-ended survey was designed and piloted within the research team which included travel medicine clinicians. Results of the pilot testing reduced the survey down to a final 26 items, of which most were closed ended questions
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	4-5	Recruitment was conducted via purposive (through targeted emails) dissemination through an Australian professional network specialising in travel medicine, and face-to-face at the 2022 Southern Cross Tropical and Travel Medicine Conference in Brisbane, Australia. The recruitment period was between August and December 2022.
Participants	6	(a) Cohort study—Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up	4	Cross-sectional study: clinicians (e.g., doctors, nurses) practicing in dedicated travel medicine clinics or general practice who were currently involved in provision of travel medicine; Individuals interested in travel

		Case-control study—Give the eligibility criteria, and the sources and methods of case ascertainment and control selection. Give the rationale for the choice of cases and controls Cross-sectional study—Give the eligibility criteria, and the sources and methods of selection of participants		medicine but not currently practicing (e.g., research academics) were excluded
		(b) Cohort study—For matched studies, give matching criteria and number of exposed and unexposed Case-control study—For matched studies, give matching criteria and the number of controls per case		
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	5	Provided on page 5 and full survey provided as supplementary material
Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	5	Descriptive analyses were conducted to assess the frequencies and proportions
Bias	9	Describe any efforts to address potential sources of bias	NA	
Study size	10	Explain how the study size was arrived at	NA	Convenience sample was used on an unknown population size. Samples are discussed further in results section (page 6): Twenty-three eligible respondents were recruited via email (from a total of 71 members of the Travel Medicine Alliance), whilst the remaining 44 eligible surveys (from a total population of 75 attendees to a Travel Medicine conference in Brisbane, Queensland)

Continued on next page

Quantitative	11	Explain how quantitative variables were handled in the	5	Descriptive analyses were conducted
variables		analyses. If applicable, describe which groupings were		
		chosen and why		
Statistical	12	(a) Describe all statistical methods, including those used	NA	
methods		to control for confounding		
		(b) Describe any methods used to examine subgroups	NA	
		and interactions		
		(c) Explain how missing data were addressed	NA	
		(d) Cohort study—If applicable, explain how loss to	NA	
		follow-up was addressed		
		Case-control study—If applicable, explain how		
		matching of cases and controls was addressed		
		Cross-sectional study—If applicable, describe analytical		
		methods taking account of sampling strategy		
		(e) Describe any sensitivity analyses	NA	
Results				
Participants	13*	(a) Report numbers of individuals at each stage of	6	Twenty-three eligible respondents were recruited via email (from a total
_		study—eg numbers potentially eligible, examined for		of 71 members of the Travel Medicine Alliance), whilst the remaining 44
		eligibility, confirmed eligible, included in the study,		eligible surveys (from a total population of 75 attendees to a Travel
		completing follow-up, and analysed		Medicine conference in Brisbane, Queensland)
		(b) Give reasons for non-participation at each stage	NA	unknown
		(c) Consider use of a flow diagram	NA	
Descriptive data	14*	(a) Give characteristics of study participants (eg	6	Provided on page 6 in table 1
-		demographic, clinical, social) and information on		
		exposures and potential confounders		
		(b) Indicate number of participants with missing data for	19-	Provided in tables 1-4 for each variable provided
		each variable of interest	27	
		(c) Cohort study—Summarise follow-up time (eg,	NA	
		average and total amount)		
Outcome data	15*	Cohort study—Report numbers of outcome events or	NA	
		summary measures over time		
		•		

		Case-control study—Report numbers in each exposure category, or summary measures of exposure	NA	
		Cross-sectional study—Report numbers of outcome events or summary measures	6-8	Provided in results and tables 1-4
Main results	16	(a) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included	NA	Descriptive analysis only was conducted
		(b) Report category boundaries when continuous variables were categorized	NA	Descriptive analysis only was conducted
		(c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	NA	Descriptive analysis only was conducted

Continued on next page

Other analyses	17	Report other analyses done—eg analyses of subgroups and	NA	
		interactions, and sensitivity analyses		
Discussion				
Key results	18	Summarise key results with reference to study objectives	9	
Limitations	19	Discuss limitations of the study, taking into account	12	Strengths and limitations of the study discussed on page 12
		sources of potential bias or imprecision. Discuss both		
		direction and magnitude of any potential bias		
Interpretation	20	Give a cautious overall interpretation of results considering	12-13	Provided in conclusion
		objectives, limitations, multiplicity of analyses, results		
		from similar studies, and other relevant evidence		
Generalisability	21	Discuss the generalisability (external validity) of the study	12	Whilst considerable efforts were undertaken to ensure the reach of
		results		our survey to members of a professional travel medicine network,
				including attendees at a national conference, the sample size obtained
				does limit the representativeness of the data
Other informati	on			
Funding	22	Give the source of funding and the role of the funders for	13	Researchers L.F.K and C.L.L were supported by Australian National
		the present study and, if applicable, for the original study		Health and Medical Research Council (NHMRC) Early Career
		on which the present article is based		Fellowship (APP1158469) and NHMRC Investigator Grant
				(APP1193826) respectively. The funders had no role in the study
				design, data collection and analysis, decision to publish or
				preparation of the manuscript.

^{*}Give information separately for cases and controls in case-control studies and, if applicable, for exposed and unexposed groups in cohort and cross-sectional studies.

Note: An Explanation and Elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. The STROBE checklist is best used in conjunction with this article (freely available on the Web sites of PLoS Medicine at http://www.plosmedicine.org/, Annals of Internal Medicine at http://www.annals.org/, and Epidemiology at http://www.epidem.com/). Information on the STROBE Initiative is available at www.strobe-statement.org.