# Risk factors of Non-communicable diseases among the Transgender population in Kerala

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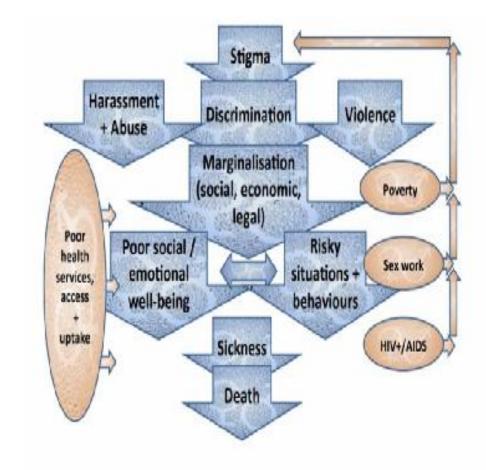


Fernandez, B., Gaitonde, R. Non-communicable diseases and its risk factors among the transgender population in Kerala: a cross-sectional study. *Int J Equity Health* **23**, 107 (2024).



## **Background**

- Transgender and gender diverse (TGD) person: incongruence between sex assigned at birth and gender identity
- Kerala State Policy for Transgenders 2015
- Research largely limited to mental and sexual health



Adapted from a figure in Winter, S. (2012). Lost in transition: transgender people, rights and HIV vulnerability in the Asia-Pacific region. Bangkok: United Nations Development Programme



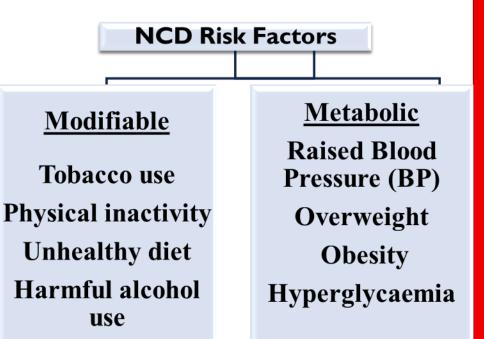




## **Objectives**

1. To determine the proportion of transpersons who have modifiable and metabolic risk factors for Non-Communicable Diseases

2. To determine the barriers transpeople face when accessing healthcare









#### **Study Design**

- Cross sectional survey based on the WHO STEPS strategy for NCD risk factors
- In-depth interviews

#### **Inclusion criteria**

 Self identified transpersons above the age of 18

#### **Exclusion criteria**

- Those who cannot respond on their own without assistance
- Those who do not give informed consent

#### **Ethical approval**

IEC of Sree Chitra Tirunal Institute for Medical sciences and Technology (SCT/IEC/1818/January/2022) dated 02-03-2022







#### Sample size calculation for Cross-sectional survey

- Sampling frame: Transgender persons registered with the Social Justice Department: 1200
- **Estimated sample size:** 89 [Madhavan et al., 2020 Proportion of tobacco users = 45%] [Precision = 10%]
- **Final sample size** = 120 [Oversampling for non-response or missing values]

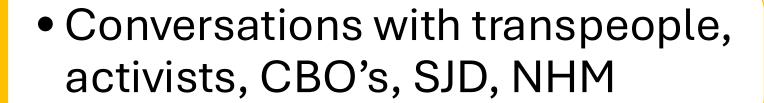
#### Sample for in-depth interviews

Purposive sampling of 13 community members









 Structured interview schedule developed

 Shared with community and gate keepers and further modified









# **Trivandrum**

#### 31 respondents

- Kudumbashree meeting; 7
- Expo food stall: 4
- Gender park: 3
- Shelter home: 6
- Personal meetings: 11



# Kollam

#### 25 respondents

- Arranged meeting: 16
- Kudumbashree meeting: 9



# Ernakulam

# **64 respondents** NHM camp

- Measurements taken: 89
- Responded for interviews: 64







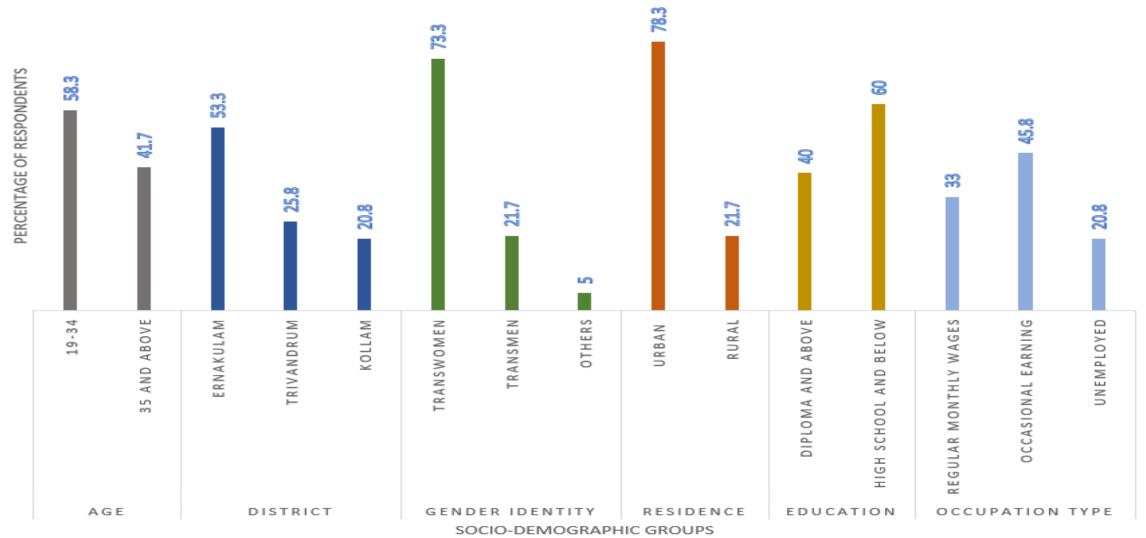








#### PERCENTAGE OF RESPONDENTS IN DIFFERENT SOCIO-DEMOGRPAHIC GROUPS











#### Only 31% were staying with families

"It was mostly emotional blackmailing ... my mother even threatened to commit suicide.....many(family members) were transphobic ... many said they won't let me enter their homes"

(IDI-1, transman, Ernakulam, 26 years)









#### 60% had an education of high school or below

"If a child in 5th has to come out and say I have a boys behaviour, she has to feel like she will be accepted. That child won't say because of the fear of teachers...They torture us a lot... they will isolate us"

(IDI-2, transman, Kollam, 28 years)









#### 67% were occasional earners or unemployed

"We are struggling for 1 Rupee. No one will give us jobs easily. They will think 10 times before giving us a job."

(IDI-3, transwoman, Trivandrum, 35 years)







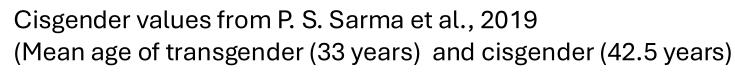
#### **Objective 1**

To determine proportion of transpeople with NCD risk factors

Risk factor	Transgender community (%)	Cisgender community(%)
Tobacco	40.8	20.30
Alcohol	40	28.9
Inactivity	44.2	21.9
Overweight	26.7	30.4
Obese	10.8	8.9
Hypertensive	27.5	30.4
Diabetic	18.3	19.2









#### Tobacco use

40.8 % [N=49] currently used tobacco in some form [95% CI (32-50.2)







#### Alcohol use

• 40 % were current alcohol users [N= 48] (95% CI 31.2-49.3)









'I started drinking few years back because some clients force us to. They are paying us money ... so we can't say no.'

(IDI-4, transwoman, Ernakulam, sex worker)







#### **Diet:**

117 [97.5 percent, 95% CI (92.9 - 99.5)] had less than the recommended amount of vegetables and fruits per day.

'I eat fruits very rarely ... only when I can afford it'

(IDI-3, transwoman, Ernakulam, 35 years)







#### Physical activity

44.2 % [N = 53] were found to be physically inactive (95% CI(35.1-44.2)









'The gym opens by 5... but at that time it will be full of boys... we won't get the ... the freedom to work out ... Now, I also have some financial difficulties ....'

(IDI-5, transman, Ernakulam, 26years)







#### Overweight and obesity

- 26.75% [N=32] were found to be overweight (95% CI 19-35.5)
- 10.8 % [N=13] were found to be obese (95% CI 5.9-17.8)

#### **Hypertension**

• 30 % [N=33] were found to be hypertensive (95% CI 19.7-36.4)

#### Diabetes

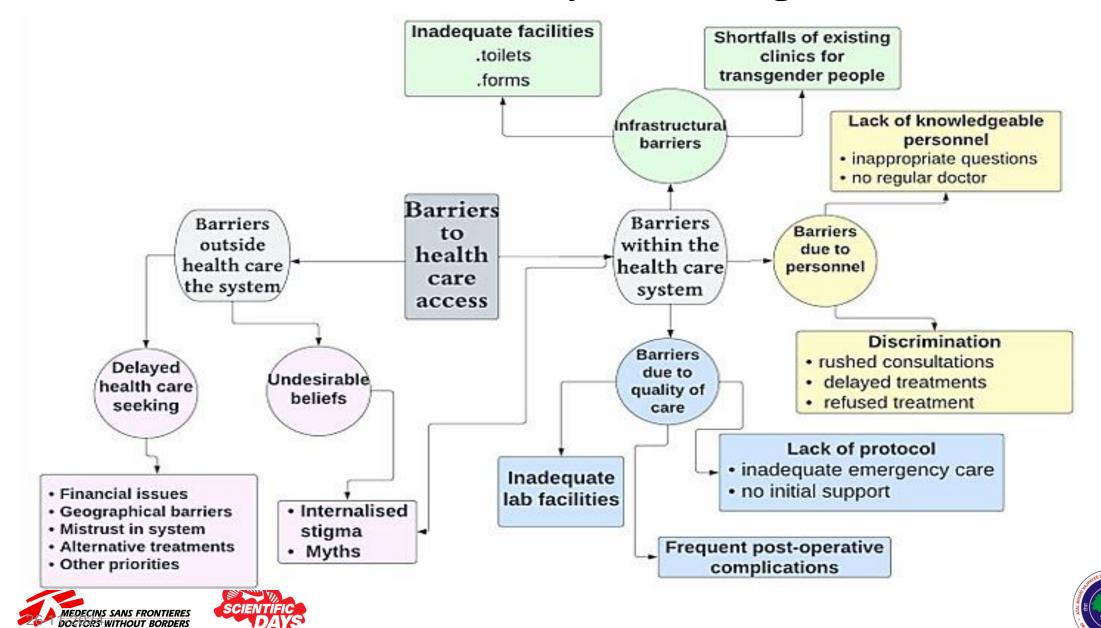
• 18.3 % [N= 22] were found to be diabetic (95% CI 11.9-26.4)

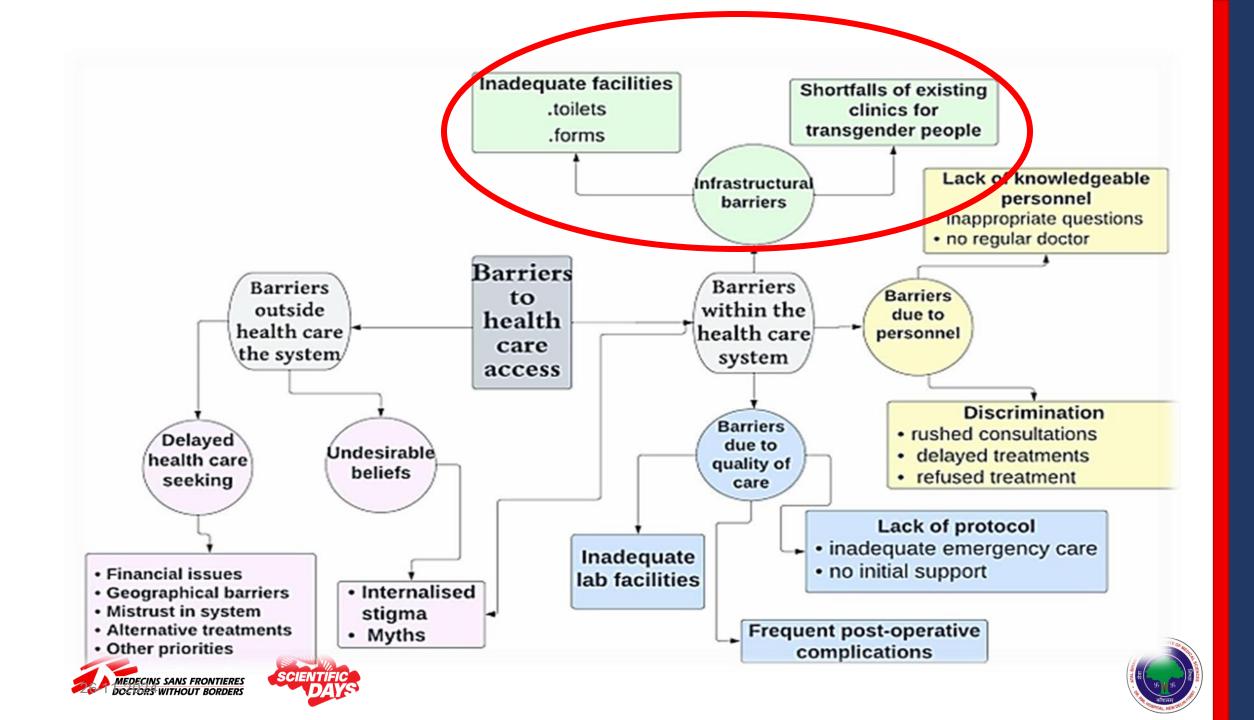






#### **Barriers to Health Care faced by the Transgender Community**





#### **Infrastructural Barriers**

#### Inadequate Facilities including

- Toilets (39%; 58% of transmen and 36% of transwomen)
- Forms (17.5%)

"Whenever we go out, passing urine is very difficult. Sometimes, I hold it till I reach home."

- Transwoman, 28 years, Kollam)







#### Infrastructural Barriers

# Shortfalls of existing clinics for the transgender community

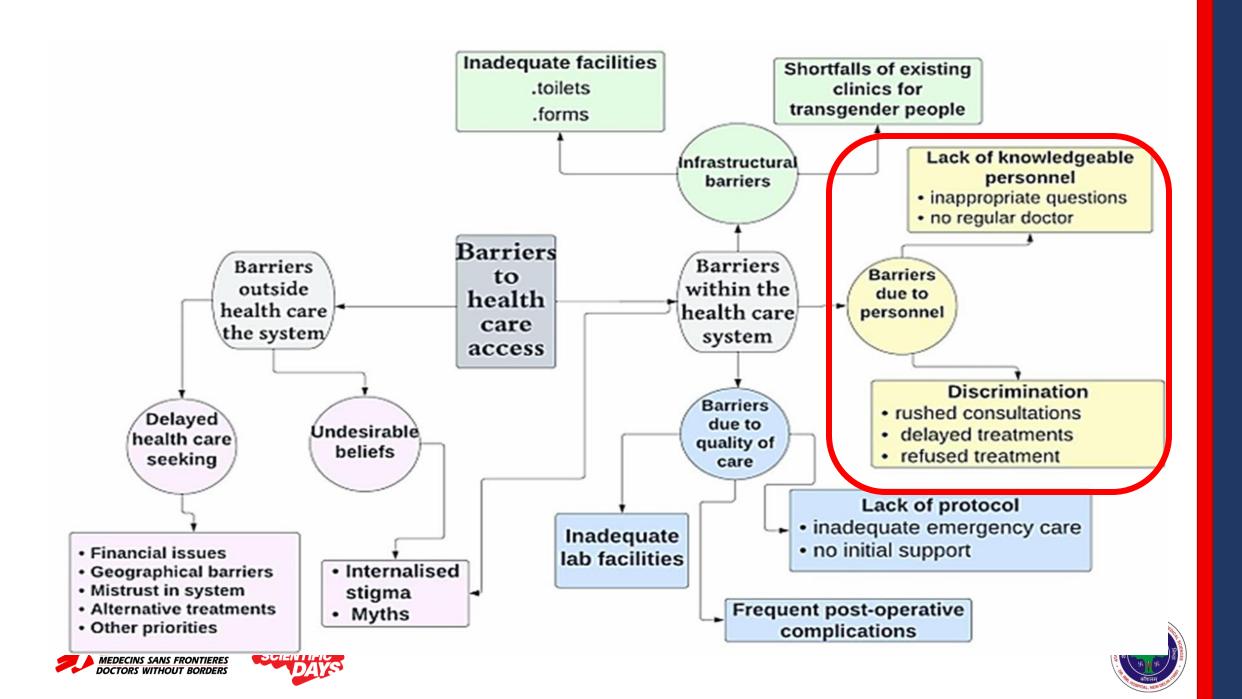
"I had called the Government centre (where specialised TGD clinic is located) many times before starting hormone therapy. In private, it is very expensive. They said that the clinic is only functioning one or two days in a month. Often, no one answers the phone, or sometimes the staff there itself don't know about the transgender clinic. Because of all that difficulty, I ultimately chose the private hospital itself "

(IDI-5, transman, 37 years, Thiruvananthapuram)









#### II- Barriers due to personnel:

a- Lack of adequately informed health care providers – 80% of respondents

b- Paucity of health care providers who were friendly to transgender people - 55%

'Government hospitals have transphobic doctors ... they speak to us in a bad way ... He (the doctor) asked me if we can have sex like normal people and if we get periods every month like women do.' (Transwoman, 33 years, Ernakulam)







#### **c- Discrimination** reported by 42%

'Earlier (before transition), the doctors used to place the stethoscope on our chest and see if we have any breathing difficulties ... they used to understand what our illness is. Now, they will just ask if we have any allergy for any medicine. As soon as we say no, they will write a lot of medicines and give us.' (Transwoman, TRV, 35 years)

**d- Lack of regular doctor** — only 26% had a regular doctor "We prefer to be able to see 1 doctor constantly, so as to avoid repeating and explaining physical issues which might have occurred during sex work — (Transwoman, 27 years, Ernakulam district)







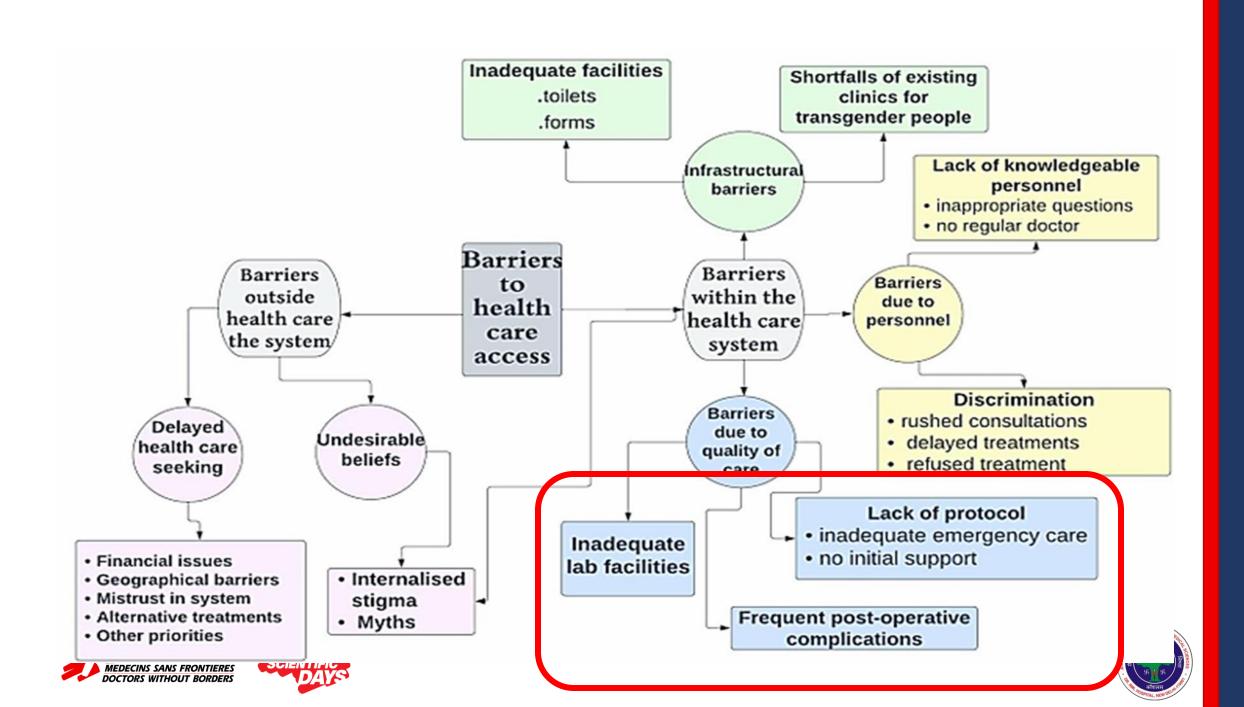
#### e- Demeaning looks from cis-gender community members

'We hesitate to go to government hospitals because of this ... the way people look at us like we are some animals that came out of somewhere ... because we feel bad most of us don't go to government hospitals. So, we think, even if we lose a little money, we can go to private and get our things done fast.' (Transwoman, Ernakulam, 38 years)









#### BARRIERS DUE TO QUALITY OF CARE

#### Lack of protocol

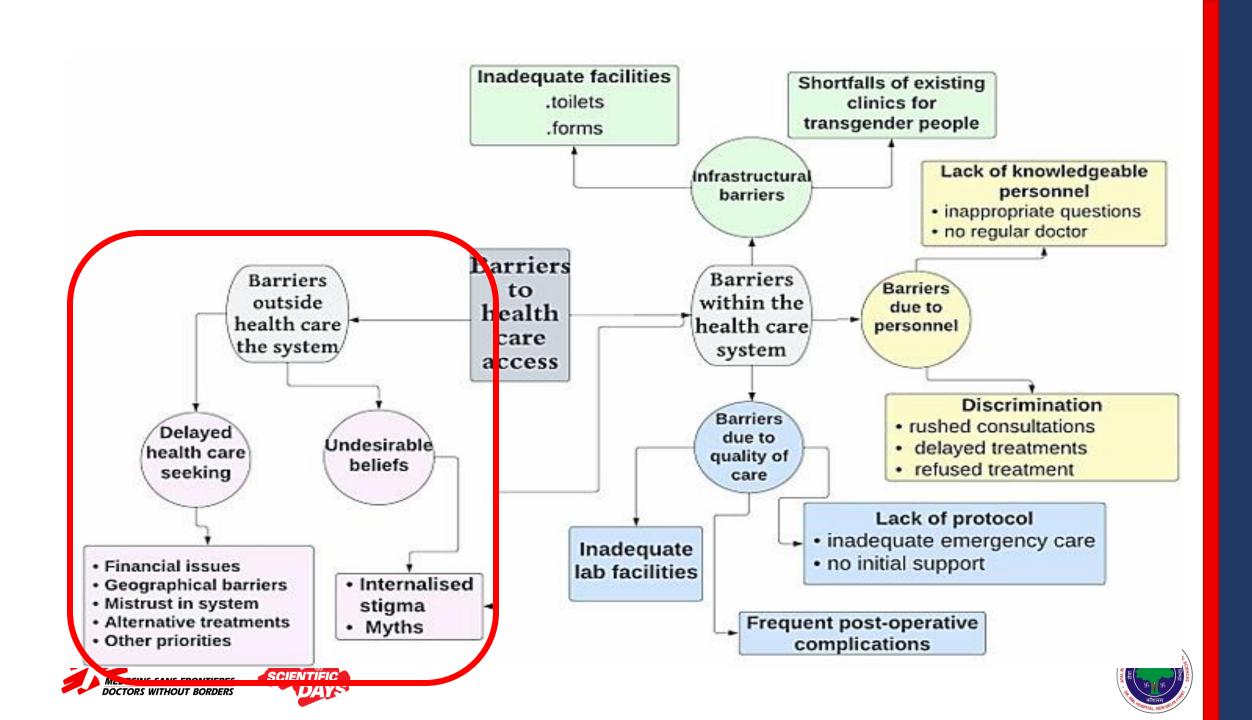
'We took the ticket itself saying that we are transwomen. Despite that, they admitted us in the male ward for treatment. When I asked about this they replied saying "We make people like you lie here only". So, I shouted at them and made a lot of noise and only after that, they unwillingly shifted us to the female ward. '(Transwoman, 22 years, Ernakulam)

#### Barriers to accessing mental health care









#### Barriers outside the healthcare system

Financial issues (84% didn't have active health insurance); Reimbursement for surgeries provided after surgery completion

Geographical barriers

Fear of side effects of modern medicine

'I had Covid ... I took lots of ayurvedic and homemade treatments...we get lots of messages as forwards, right? ... I used to drink these things daily in the evenings.' (Transwoman, 41 years, Ernakulam)







## **Strengths**

- First study in Kerala
- Mixed method

### Limitations

- Not random sampling
- Social desirability bias







# Recommendations

Awareness classes, opportunistic screening, peer support groups

Include content on transgender persons health care in undergraduate medical courses, nodal contact person at each government hospital

Participatory research, larger and more representative studies required







#### References:

Non-communicable Diseases | National Health Portal Of India (2021). Available at: https://www.nhp.gov.in/healthlyliving/ncd2019 (accessed 24 May 2022)

Madhavan M, Reddy MM, Chinnakali P, et al. (2020) High levels of non-communicable diseases risk factors among transgenders in Puducherry, South India. *Journal of Family Medicine and Primary Care* 9(3): 1538–1543. DOI: 10.4103/jfmpc.jfmpc\_1128\_19.

Sarma P. S., Sadanandan R, Thulaseedharan JV, et al. (2019) Prevalence of risk factors of non-communicable diseases in Kerala, India: results of a cross-sectional study. *BMJ Open* 9(11). British Medical Journal Publishing Group: e027880. DOI: 10.1136/bmjopen-2018-027880.













