

Supplementary table 2: Approaches used to reduce vaccine hesitancy and improve vaccine acceptance in Ethiopia

Titles	Study design	Region	Participant	Year	Sample size	Approaches to reduce COVID-19 vaccine hesitancy
COVID-19 vaccine hesitancy among Ethiopian healthcare workers(28)	Institutional-based cross-sectional study	Addis Ababa	Healthcare workers	2021	614	<p>Changing belief regarding acquired immunity is superior than vaccination</p> <p>Improving trust in COVID-19 vaccine product</p> <p>Improving trust in the Ministry of Health</p> <p>Changing the negative concern on COVID-19 vaccine</p> <p>Changing negative perception on the safety of COVID-19 vaccine</p> <p>Improving believe in COVID-19 vaccine benefits</p>
COVID-19 vaccine hesitancy in Addis Ababa, Ethiopia: a mixed-method study(22)	Concurrent mixed-method	Addis Ababa	Adult	2022	422	<p>Improving information about COVID-19 vaccine</p> <p>Solving fear effectiveness COVID-19 vaccine</p> <p>Changing perception on side effects COVID-19 vaccine</p> <p>Improving attitude toward COVID-19 and its preventive measures</p>
COVID-19 Knowledge, Attitudes, and Vaccine Hesitancy in Ethiopia(29)	A Community-Based Cross-Sectional Study	Ethiopia	Community	2023	1361	<p>Enabling adequate preventive practices</p>
Understanding determinants of COVID-19 vaccine hesitancy ; an emphasis on the role of religious affiliation and individual's reliance on traditional remedy(60)	Cross-sectional survey	Jimma University	Staffs and students	2022	358	<p>Reducing concern toward vaccine side effect and vaccine effectiveness</p> <p>Changing belief to treat COVID-19 with traditional remedies</p>

COVID-19 Vaccine Hesitancy and Its Associated Factors among Adolescents(20)	Institutional-based cross-sectional study	Jimma	Adult	2021	379	Improving knowledge of COVID-19 disease
Determinants of COVID-19 vaccine hesitancy among health care workers in Amhara region referral hospitals, Northwest Ethiopia(54)	Cross-sectional survey	Amhara	Healthcare workers healthcare workers	2021	418	Provision of clear information about the vaccine
Prevalence and Determinants of COVID-19 Vaccine Hesitancy Among the Ethiopian Population(52)	Systematic Review	Ethiopia	Community	2022	9897	Healthcare managers should acknowledge the widespread prevalence of COVID-19 vaccine hesitancy in Ethiopian regions
COVID-19 Vaccine Hesitancy and its Reasons in Addis Ababa, Ethiopia(30)	Cross-sectional survey	Addis Ababa	Community	2022	422	Changing fear of vaccine side effects Changing doubt about its effectiveness Providing enough information about the COVID-19 vaccine
Prevalence of COVID-19 Vaccine Hesitancy and Its Associated Factors among Chronic Disease Patients in a Resource Limited Setting in Ethiopia(52)	Institutional-based cross-sectional study	Northwest Ethiopia	Chronic patient	2021	422	Delivering more information about the COVID-19 vaccine's safety and efficacy Disseminating accurate information, particularly among women Educating people about the vaccine
COVID-19 vaccine hesitancy among adults in Hawassa City Administration, Sidama Region, Ethiopia(68)	Community-Based Cross-Sectional Study	Sidama	Adults	2023	622	Improving people's awareness COVID-19 vaccine's Focus interventions on the identified risk factors for vaccine hesitancy

Myth and Misinformation on COVID-19 Vaccine: The Possible Impact on Vaccination Refusal Among People of Northeast Ethiopia: A Community-Based Research(58)	Community-Based Cross-Sectional Study	Northeast Ethiopia	Adults	2022	574	Enhancing community's eHealth and computer literacy Promoting awareness of the reliability of vaccine information sources
COVID-19 Knowledge, Attitudes, and Vaccine Hesitancy in Ethiopia: A Community-Based Cross-Sectional Study(29)	Community-Based Cross-Sectional Study	Amhara	adults	2023	1361	Specifically designed, culturally tailored health education materials High level of engagement from politicians, religious leaders, and other community members
COVID-19 vaccine hesitancy , adverse events following immunization, and associated factors among the Ethiopian general population during the early phase of the COVID-19 vaccination program(112)	Community-Based Cross-Sectional Study	Ethiopia	Community	2021	853	Improving attitudes toward the COVID-19 vaccine Motivating users to recommend the vaccine to other people
COVID-19 vaccine acceptance and its determinants among residents of Ambo Town, West Shewa, Oromia Region, Ethiopia: cross-sectional survey(113)	Community-Based Cross-Sectional Study	Ambo Town	Community	2022	385	Strengthen public education using mass media about the advantages of getting the COVID-19 vaccination
COVID-19 vaccine hesitancy among health professionals in a tertiary care center at the University of Gondar Specialized Hospital, Ethiopia: A cross-sectional study(114)	Institutional-based cross-sectional study	University of Gondar Specialized Hospital.	Health professionals	2022	319	COVID-19 vaccination programs should be redesigned to remove barriers to vaccine acceptance Improving Knowledge and attitude toward the COVID-19 vaccine

COVID-19 Vaccine Acceptance, Attitude, Hesitancy , and Its Associated Factors among Wolaita Sodo University Students: A Mixed-Method Study(27)	Institutional-based cross-sectional study	Wolaita Sodo University Students	Health science students	2023	352	Design an evidence-based strategy to reduce vaccine Hesitancy
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