

TASK SHIFTING and SHARING for

90-90-90:

a check list for implementation

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One Million Community
Health Workers Campaign

 COLUMBIA UNIVERSITY
IN THE CITY OF NEW YORK

IATAC
INTERNATIONAL ASSOCIATION
OF PROVIDERS OF AIDS CARE

 SUSTAINABLE DEVELOPMENT
SOLUTIONS NETWORK
A GLOBAL INITIATIVE FOR THE UNITED NATIONS



THE GOVERNMENT
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 **UNAIDS**

Background

Ending the AIDS epidemic

In September 2015, countries across the globe embraced a 15-year agenda to ensure sustainable development for all. An integral component of the Agenda for Sustainable Development is bringing an end to the AIDS epidemic by 2030. As a foundation for the global push to end the AIDS epidemic, the world has set a new target of **90-90-90**.

By 2020:

- 1) **90%** of all people living with HIV will know their HIV status;
- 2) **90%** of all people with diagnosed HIV infection will receive sustained antiretroviral therapy (ART);
- 3) **90%** of all people receiving ART will have viral suppression.

Attainment of the **90-90-90** target will have the effect of dramatically reducing the burden of AIDS-related disease and incident HIV infections. However, health services cannot be delivered without a workforce. Ending the AIDS epidemic as a public health threat can only be achieved with sufficient, well trained and strategically deployed human resources. The World Health Organisation (WHO) has predicted a global health worker shortage of 12.9 million by 2035.¹ A shortfall so vast cannot realistically be met just by increasing production of high-level professional cadres or through traditional approaches to health workforce deployment. Innovative, community-based models for health care delivery must now be widely adopted, implemented and expanded as part of the effort to build sustainable and resilient health systems.

New knowledge + new technologies = new models for service delivery

90-90-90 is premised on the new understanding that immediate treatment with ART not only reduces morbidity and mortality, but also viral transmission and progression to AIDS. Consequently, the need for complex care is reduced because asymptomatic patients are able to take advantage of simpler and safer treatment regimens.

Appropriately trained community health workers (CHWs) are well able to serve the needs of healthier populations of people on ART in a way that was not previously possible in circumstances where HIV treatment was more complex. Community health workers liberate highly trained doctors and nurses to treat more complex advanced cases of HIV/AIDS, related co-morbidities and other health needs.

New diagnostics and pharmaceuticals provide an opportunity to redistribute tasks among health care teams. In many cases, health care teams have been expanded to include, not only different cadres of professional health workers and CHWs, but also peers and individual patients. Within the context of a fully functional HIV care team, tasks that only a few years ago required the expertise of a doctor or nurse can now be safely and effectively performed in the community or in the home with the support of peers or even by individuals or family members. Home test kits are an example of a new technology that provides an opportunity for individuals to test themselves for HIV at home.

A new environment and new technologies demand new thinking as well as a reassessment of previous

scopes of practice and approaches to training, mentoring, supervising and supporting new cadres.

What is Task Shifting and Sharing?

Task shifting or task sharing are the names given to the process by which tasks are re-distributed, where appropriate, to health workers or community members with shorter training or fewer formal qualifications. By reorganizing and decentralizing tasks across teams, task shifting and sharing can make more efficient use of existing human resources and ease bottlenecks in service delivery.² WHO currently defines task shifting or task sharing as “the rational redistribution of tasks between cadres of health workers with longer training and other cadres with shorter training, such as lay providers.”³

In 2008, WHO published Global Recommendations and Guidelines on Task Shifting.⁴ These guidelines provided a framework to help support and guide widespread implementation of task shifting. They also brought clarity to task shifting and identified and defined the conditions and systems that must be in place if the approach is to prove safe, efficient, effective and equitable while supporting sustainable scale up of HIV treatment and care within a broader health system.

Acceptance of the value of task shifting and sharing has grown since 2008 and there are many examples of this type of delegation of tasks for delivering a wide range of health services in high resource and low-resource environments.⁵

Task shifting and sharing can involve the reallocation of some of the tasks of a medical doctor to a

non-physician clinician or from a nurse to a lay provider.⁶ Task shifting and sharing can also include the delegation of clearly delineated tasks to cadres of CHWs who receive specific, competency-based training, mentoring and supervision. With the right support structures in place, experience now endorses the further redistribution of tasks to groups of community members or peers and to individual self-carers. Since 2008, WHO has further updated its guidelines and guidance on task shifting and task sharing and many new documents have further established the evidence base for some formal recommendations which have been published by WHO and are summarised later in this document (see page 20 – Priorities for Rapid Implementation: WHO evidence-based task shifting and sharing recommendations).

Enabling people living with HIV to take responsibility for their care, and the shifting and sharing of HIV testing, dispensing of ART and other tasks among professional health worker cadres was also recommended in 2015 evidence-based guidelines for optimizing the HIV care continuum issued by the International Association of Providers of AIDS Care (IAPAC).⁷

Task shifting and sharing for **90-90-90**: a check list for implementation

Task shifting and sharing alone will not put an end to the shortage of health workers but it may offer the only realistic possibility for increasing access to HIV testing, treatment and care fast enough to meet the **90-90-90** target. A task shifting and sharing approach can also improve quality by bringing services closer to patients and ensuring support is available from people with a common understanding of local factors and individual patient needs.

The 2008 Global Recommendations and Guidelines on Task Shifting⁸ included a check list of tasks along with an indication of which cadres were able to perform specific tasks in a manner that was both safe and effective based on the evidence that existed at the time. That check list has been widely used to support implementation of a task shifting approach at the country level.

Now, in 2016, approaches to HIV testing, treatment and care have evolved. Some of the tasks involved in preventing the transmission of HIV, ensuring people can know their HIV status, clinically managing HIV and initiating and maintaining ART have changed. New cadres of health workers now exist while the scopes of practice of others have evolved. An updated check list reflecting these changes is therefore warranted.

The evidence

The new check list is a derivative implementation tool to support countries in their approaches to a task shifting and sharing approach as part of the effort to achieve the **90-90-90** target by 2020.

The check list provides an up-to-date list of tasks that are pertinent to each of the targets enshrined in **90-90-90**: testing so that 90% of all people living with HIV will know their HIV status; sustained treatment with ART for 90% of all people diagnosed with HIV infection and; viral suppression for 90% of all people receiving ART. It is aspirational and envisages the reorganization of service delivery among cadres along a differentiated care framework where community, as well as home-based services, delivered by CHWs and individual self-carers all play a critical role.

This implementation check list outlines both task shifting and task sharing approaches that have been reviewed and approved by WHO based on the current evidence for improved outcomes, acceptability and feasibility,⁹ as well as listing other tasks that have the potential for re-distribution based on current country experience. The evidence drawn from country experience has been endorsed by expert opinion. The check list is also informed by published literature and by the existing task shifting recommendations and guidelines published by WHO.¹⁰ These different levels of evidence are delineated by different symbols in the check list box (red check mark with star for evidence-based recommendation; black check mark alone for approaches based on country experience). (For more detail see Methods on page 22.)

Instructions:

How to use the check list

The check list is intended as a guide that indicates the potential scope of practice for each health worker cadre. In practice, decisions on which cadre is assigned responsibility for which tasks will be made at the country level based on a number of factors, including the demography of the available human resources for health, workload considerations and the service delivery model that is in place or that the country wishes to adopt.

Horizontal axis: Health worker cadres

Each task in the table is cross-referenced against eight broadly recognized categories of health worker cadres. The categories are consistent with those defined by WHO under the *International classification of health workers, Classification of health workforce statistics*,¹¹ and in the WHO *Consolidated Guidelines on the Use of Antiretroviral Drugs for Treating and Preventing HIV Infection*.¹²

The eight cadres are:

Physician – general and specialist medical doctors who diagnose, treat and prevent illness, disease, injury and other physical and mental impairments. Occupations in this category require completion of a university-level degree in basic medical education plus postgraduate clinical training or equivalent.

Non-Physician Clinician – professional health workers capable of many of the diagnostic and clinical functions of a physician but who are not trained as physicians. This includes health officers, clinical officers, physician assistants, nurse practitioners or nurse clinicians.

Nurse – people who have been authorized to practise as a nurse or trained in basic nursing skills. This includes registered nurses, clinical nurse specialists, licensed nurses, auxiliary nurses, dental nurses and primary care nurses. WHO defines midwives as a cadre that is distinct from nurses. In this check list, however, the Nurse cadre can also be understood to include registered midwives, community midwives and nurse-midwives.

Laboratory Technician – medical and pathology laboratory technicians who have undertaken formal training in biomedical science, medical technology or a related field.

Lay Provider – any person who performs functions related to health-care delivery and has been trained to deliver specific services but has not received a formal professional or paraprofessional certificate or tertiary degree. This includes facility-based auxiliaries, health care assistants, disease control officers, lay counsellors.

Community Health Worker – health workers who have received standardized and nationally endorsed training outside the nursing, midwifery or medical curricula. They are community-based and facility-linked.

Peer – people in the community who either have or are affected by HIV and therefore have experiential knowledge of a specific behaviour or stressor and similar characteristics as the target population. Peers are formally recognised but they are volunteers, not employees.

Self – individual healthcare clients who contribute to caring for themselves. Self-care requires that people

have the education and support they need to make decisions and participate in their own care.

Note: Other cadres such as **Pharmacists**, **Pharmacy Technicians** and **Pharmacy Assistants** are also part of health care teams. They have not been included in this check list but their potential to perform a variety of tasks for the delivery of HIV services, depending on local context and on the availability and organisation of human resources for health and assuming appropriate training and supportive supervision, is recognised.

Vertical axis: List of Tasks

The list outlines a range of tasks relevant for the delivery of HIV services. The list of tasks is not exhaustive. It does not aim to provide a comprehensive list of all tasks associated with HIV testing, treatment and care. The tasks listed are particularly relevant to the achievement of the **90-90-90** target. They are organized under three sections that are consistent with efforts needed to achieve each of the three targets.

The check boxes: what does a check mark mean?

A check mark indicates which cadre is able to perform each task in a manner that is both safe and effective, assuming that all groups have standardised training and appropriate supervision specific to the performance of that task.

A red check mark with star ✓* denotes a distribution of tasks that is recommended under the *WHO Consolidated Guidelines on the Use of Antiretroviral Drugs for Treating and Preventing*

HIV Infection, Recommendations for a Public Health Approach, Second Edition, WHO 2016. These recommendations are supported by a systematic review of published evidence.

A check mark alone ✓ indicates that the performance of the task by the cadre is supported by evidence drawn from country experience, endorsed by expert opinion and informed by a review of literature that was not comprehensive (see Methods and Further Reading). These checks should be understood as a practical guide that can be followed at the discretion of implementers based on judgement and local conditions.

A check mark should not be read as an instruction that the task must be performed by that cadre or that the cadre concerned should be expected to perform all the tasks for which they may be theoretically competent. For example, the check list indicates the feasibility of many tasks being performed by CHWs that were formerly only performed by more highly qualified cadres. But adding many tasks to the workload of CHWs without increasing their numbers or differentiating between groups of CHWs would clearly overburden this group of health workers. It must also be noted that there is variation within and between countries in the education, competencies, scope of practice, structures for supportive supervision and terms and conditions of service for the health workforce cadres named in this check list. Contextual variations in the health labour market and in policies and regulations also have a bearing on the appropriate distribution of tasks between cadres. The check list should therefore be used to support, not dictate, decision making around task distribution as appropriate in each context.

Important Considerations

1. The **90-90-90** check list is informed by existing published guidelines and recommendations including: *WHO Consolidated Guidelines on the Use of Antiretroviral Drugs for Treating and Preventing HIV Infection, recommendations for a public health approach, second edition, 2016*, (available at: <http://www.who.int/hiv/pub/arv/arv-2016/en/>); *Task Shifting: Global Recommendations and Guidelines, WHO 2008* (available at <http://www.who.int/healthsystems/TTR-TaskShifting.pdf>); *WHO recommendations: optimizing health worker roles to improve access to key maternal and newborn health, WHO, 2012* (available at www.who.int/reproductivehealth/publications/maternal_perinatal_health/978924504843/en); *Guidance on provider-initiated HIV testing and counselling in health facilities. Geneva: World Health Organisation; 2007* (available at <http://www.who.int/hiv/pub/vct/pitc2007/en>); *IAPAC Guidelines for Optimizing the HIV Care Continuum for Adults and Adolescents, Journal of the International Association of Providers of AIDS Care, 2015 Nov-Dec;14* (available at: <http://www.iapac.org/uploads/IIAPAC-IAPAC-Guidelines-for-Optimizing-the-HIV-Care-Continuum-Supplement-Nov-Dec-2015.pdf>).

The check list should be used in conjunction with these existing guidelines and recommendations.

2. Task shifting and sharing must be understood as one of a range of strategies to strengthen human resources for health and should be implemented as part of, not instead of, other efforts to increase the numbers of trained health workers, including professional health workers.

3. Task shifting and sharing can introduce efficiencies in health care delivery. However, it should not be seen as a cost saving measure but rather as an approach for improving access and quality of health services. Sufficient resources will be needed to ensure successful implementation.

4. Steps to revise existing regulatory frameworks or develop new policies may be needed to ensure that task shifting and sharing can be properly accommodated and supported within an appropriate regulatory framework.

5. Quality assurance and quality improvement mechanisms are essential to ensure that task shifting and sharing is implemented in ways that maintain quality standards.

6. Systematic approaches to harmonized, standardized and competency-based training are necessary to ensure all health workers are equipped to perform the tasks assigned to them.

7. Supportive supervision, ongoing and sustainable mentoring, and well-functioning referral systems are essential to ensure the success of a task shifting and sharing approach.

8. The check list should help to harmonize the HIV services that are provided throughout the public and non-state sectors and to improve consistency and standardisation of service delivery across the spectrum of providers – including where provision is undertaken by people working for Ministries of Health and by people working within the programmes of non-governmental organisations (NGOs) and community-based organisations (CBOs).

9. All health providers, regardless of cadre, must ensure that they are delivering services free from stigma and discrimination and criminalization so that no individual is deterred from accessing and using services. All cadres should demonstrate good practice in the performance of all tasks by demonstrating respect for the diverse range of beliefs, practices and values that influence behaviours and health-related decision making and protect the right to privacy of all patients.

Task shifting and sharing for **90-90-90**: a check list for implementation

Key

✓* = recommended under the *WHO Consolidated Guidelines on the Use of Antiretroviral Drugs for Treating and Preventing HIV Infection, Recommendations for a Public Health Approach, Second Edition, WHO 2016* or under other existing WHO Guidelines.

✓ = supported by evidence drawn from country experience, endorsed by expert opinion and informed by a review of literature that was not comprehensive (see Further Reading). These check marks indicate the potential scope of practice for each cadre of health worker. A check mark should not be interpreted as an instruction that the task must be performed by that cadre or that the cadre concerned should be expected to perform all the tasks for which they may be theoretically competent.

IMPORTANT NOTE ON USING THE CHECK LIST: Please read instructions on “How to Use the Check List” (page 8) and “Important Considerations” (page 10) before referring to the check list.

The first 90: 90% of all people living with HIV will know their HIV status

1. Testing for HIV: in the home, in the community, in the health facility, and self-testing	Physician	Non-Physician Clinician	Nurse	Laboratory Technician	Lay Provider	Community Health Worker	Peer	Self
Provide health education/information	✓	✓	✓	✓	✓	✓	✓	✓
Recommend/offer HIV testing	✓	✓	✓	✓	✓	✓	✓	✓
Sample collection (blood)	✓	✓	✓	✓	✓	✓	✓	✓
Sample collection (saliva)	✓	✓	✓	✓	✓	✓	✓	✓
Sample collection (finger/heel stick) for nucleic acid testing (in infants/children)	✓	✓	✓	✓	✓	✓		
Conduct HIV test (rapid test)	✓	✓	✓	✓	✓	✓	✓	✓
Interpret HIV test (rapid test)	✓	✓	✓	✓	✓	✓	✓	✓
Confirm HIV infection in children	✓	✓	✓	✓				
Shipment of relevant samples to laboratory	✓	✓	✓	✓	✓	✓		
Collection of results from laboratory	✓	✓	✓	✓	✓	✓	✓	✓

	Physician	Non-Physician Clinician	Nurse	Laboratory Technician	Lay Provider	Community Health Worker	Peer	Self
Communicate HIV test results/post-test counselling	✓	✓	✓	✓	✓	✓	✓	
Encourage and offer HIV testing for sexual partners, children, and other family members (through couples testing, index case testing, family testing or partner notification)	✓	✓	✓	✓	✓	✓	✓	
Provide symptom screening for priority diseases (e.g. TB, malaria, NCDs)	✓	✓	✓	✓	✓	✓		
Linkage/referral to prevention, care and treatment services	✓	✓	✓	✓	✓	✓	✓	
Offer appropriate repeat testing to people who test negative	✓	✓	✓	✓	✓	✓	✓	

2. Prevention

	Physician	Non-Physician Clinician	Nurse	Laboratory Technician	Lay Provider	Community Health Worker	Peer	Self
a. Basic prevention								
Provide key information on HIV, safe sex and condom use and distribute condoms and educational materials	✓	✓	✓	✓	✓	✓	✓	
Educate and counsel on sexually transmitted infections (STIs)	✓	✓	✓	✓	✓	✓	✓	
Manage STIs	✓	✓	✓					
b. Prevention for pregnant women								
Counsel mother on interventions to reduce the risk of transmitting HIV to her infant including infant feeding options	✓	✓	✓	✓	✓	✓	✓	
Advise and counsel on safe sex, partner and children testing	✓	✓	✓	✓	✓	✓	✓	
Provide antenatal care	✓	✓	✓			✓		
Make delivery and post-delivery follow-up plan	✓	✓	✓					
Provide PMTCT interventions during labour and child birth	✓	✓	✓					
Provide active follow up of mothers and exposed infants during ANC, delivery, & the PNC period	✓	✓	✓	✓	✓	✓	✓	
Advise and counsel on family planning	✓	✓	✓		✓	✓	✓	
c. Prevention through use of Pre- or Post-Exposure Prophylaxis (PrEP or PEP)								
Assess type of exposure for risk of HIV infection	✓	✓	✓	✓	✓	✓	✓	✓
Recognize people at high risk of continuous / frequent exposure to HIV e.g. CSW, MSM	✓	✓	✓	✓	✓	✓	✓	
Offer initiation of PrEP/PEP ARV regimens	✓	✓	✓			✓		

	Physician	Non-Physician Clinician	Nurse	Laboratory Technician	Lay Provider	Community Health Worker	Peer	Self
Manage self-limiting side-effects of ARV drugs	✓	✓	✓		✓	✓		
Manage severe toxicities of ARV drugs	✓	✓	✓					
Conduct and interpret post-exposure HIV test	✓	✓	✓	✓	✓	✓	✓	✓
Provide counselling and support, and refer to formal psychological counselling as needed	✓	✓	✓	✓	✓	✓	✓	
Refer for GBV/PEP services	✓	✓	✓	✓	✓	✓	✓	
d. Prevention through circumcision								
Provide sexual and reproductive health counselling	✓	✓	✓		✓	✓	✓	
Conduct pre-surgical assessment	✓	✓	✓		✓			
Conduct circumcision (sterilization, aseptic technique, local anesthesia, surgical procedure)	✓	✓	✓					
Conduct non-surgical circumcision (e.g. PrePex)	✓	✓	✓		✓	✓		
Provide post-surgical care (aseptic technique, wound management)	✓	✓	✓					
Manage complications and refer	✓	✓	✓					
e. Prevention among specific population groups (PWIDs, CSW, MSMs, TG, prisoners)								
Educate/advise on safe sexual and injection practices and harm reduction	✓	✓	✓	✓	✓	✓	✓	
Encourage and support to minimize risk of infection	✓	✓	✓	✓	✓	✓	✓	
Encourage enrolment in specific HIV programs	✓	✓	✓	✓	✓	✓	✓	
Discuss disclosure and encourage partner testing	✓	✓	✓	✓	✓	✓	✓	

The second 90: 90% of all people with diagnosed HIV infection will receive sustained ART

1. Clinical Management of HIV	Physician	Non-Physician Clinician	Nurse	Laboratory Technician	Lay Provider	Community Health Worker	Peer	Self
a. Patient Visit and Clinical Review								
Decide which patient needs to be seen by which health worker (triage)	✓	✓	✓	✓	✓	✓	✓	
Register patient	✓	✓	✓	✓	✓	✓	✓	
Take vital signs (weight and height)	✓	✓	✓	✓	✓	✓	✓	
Assess clinical signs and symptoms	✓	✓	✓			✓		

	Physician	Non-Physician Clinician	Nurse	Laboratory Technician	Lay Provider	Community Health Worker	Peer	Self
Assess pregnancy status, family planning and HIV status of partners and children	✓	✓	✓	✓	✓	✓		
Review TB status	✓	✓	✓	✓	✓	✓		
Request routine laboratory tests	✓	✓	✓	✓				
Request viral load test (or CD4 test if viral load not available)	✓	✓	✓	✓				
Provide primary and secondary OI prophylaxis	✓	✓	✓					
Execute routine laboratory tests				✓				
Register results/fill in lab result form	✓	✓	✓	✓	✓	✓		
Interpret routine laboratory results	✓	✓	✓	✓				
Provide psychological support and counselling	✓	✓	✓	✓	✓	✓	✓	
b. Manage Opportunistic Infections (OIs) and Other Complications								
Manage mild HIV complications or associated OIs	✓	✓	✓					
Manage moderate HIV complications or associated OIs	✓	✓	✓					
Manage severe HIV complications or associated OIs	✓	✓	✓					
Screen for, diagnose, manage and provide health education on chronic disease co-morbidities (hypertension, DM, chronic pulmonary diseases)	✓	✓	✓					
Screen for and provide health education on chronic disease co-morbidities (hypertension, DM, chronic pulmonary diseases)	✓	✓	✓	✓	✓	✓	✓	
Provide appropriate primary or secondary antimicrobial prophylaxis	✓	✓	✓			✓		
Request routine Cryptococcal antigen screening for treatment naive patients with CD4 <100 cells/mm ³	✓	✓	✓					
c. Specific Co-infections								
i) Tuberculosis								
Initiate INH preventive therapy (IPT)	✓	✓	✓			✓		
Identify TB-related symptoms (such as chronic cough and/or chronic fever and/ or weight loss)	✓	✓	✓	✓	✓	✓	✓	✓
Request Xpert MTB/RIF test or, if not available, sputum exam (Ziehl-Neelsen) for TB suspects	✓	✓	✓					
Request additional exams (such as X-ray, ultrasound etc.) to establish the diagnosis of TB in TB suspects	✓	✓	✓			✓		

	Physician	Non-Physician Clinician	Nurse	Laboratory Technician	Lay Provider	Community Health Worker	Peer	Self
Initiate TB treatment in a patient with a first episode of sputum positive pulmonary TB	✓	✓	✓					
Initiate TB treatment in a patient with sputum-negative and/or extra pulmonary TB	✓	✓	✓					
Initiate TB treatment in a patient with MDR or XDR-TB	✓	✓	✓					
After decision for initiation of TB treatment, provide TB/ART co-treatment to patient with sputum-positive pulmonary TB	✓	✓	✓			✓		
Monitoring TB treatment response (clinical and laboratory)	✓	✓	✓			✓		
Recognize side-effects of TB and/or HIV medications and encourage/ assist consultation or clinic visit when necessary	✓	✓	✓	✓	✓	✓	✓	✓
Identify/manage a patient with symptoms suspected for TB immune reconstitution inflammatory syndrome (IRIS)	✓	✓	✓					

ii) Viral hepatitis

Perform rapid test for hepatitis B virus infection (HBV) and hepatitis C virus (HCV) infection	✓	✓	✓	✓	✓	✓		
Recognize signs and symptoms of liver disease and advise relevant diagnostic tests	✓	✓	✓		✓	✓	✓	
Select and initiate HBV treatment	✓	✓	✓					
Select and initiate HCV treatment	✓	✓	✓					
Manage/treatment decompensated liver disease	✓							
Recognize side effects of HBV or HCV medications	✓	✓	✓		✓	✓	✓	✓
Monitor effectiveness of treatment response	✓	✓	✓			✓		

2. Clinical Management of HIV infection in special groups

	Physician	Non-Physician Clinician	Nurse	Laboratory Technician	Lay Provider	Community Health Worker	Peer	Self (Child Care Provider)
a. Infants								
Provide ARV prophylaxis to infant	✓	✓	✓					
Provide neonate care plan including co-trimoxazole prophylaxis	✓	✓	✓			✓		
Explain timing for HIV test of the child to caregivers	✓	✓	✓	✓	✓	✓	✓	
Make a presumptive diagnosis of severe HIV diseases in children < 18 months (in the absence of DNA PCR)	✓	✓	✓					

	Physician	Non-Physician Clinician	Nurse	Laboratory Technician	Lay Provider	Community Health Worker	Peer	Self (Child Care Provider)
Take and prepare blood for early infant diagnosis	✓	✓	✓	✓	✓	✓		
Assess developmental milestones in a HIV-exposed infant	✓	✓	✓			✓		
b. HIV+ Children								
Conduct clinical review of signs and symptoms	✓	✓	✓		✓	✓		
Assess for developmental milestones	✓	✓	✓			✓		
Assess and manage HIV-associated malignancies in children	✓	✓						
Provide supportive care to children with HIV-associated malignancies	✓	✓	✓		✓	✓	✓	
Provide education and psychosocial support to HIV+ children and for other children in household, including orphans and caregivers	✓	✓	✓	✓	✓	✓	✓	
c. Pregnant women								
Counsel mother on interventions including ART to reduce the risk of transmitting HIV to her infant	✓	✓	✓	✓	✓	✓	✓	
Advise and counsel on safer sex, partner and children testing	✓	✓	✓	✓	✓	✓	✓	✓
Provide antenatal/postnatal care (including information regarding infant feeding options)	✓	✓	✓	✓	✓	✓	✓	✓
Provide PMTCT interventions during labour and child birth	✓	✓	✓					
Advise and counsel on family planning	✓	✓	✓		✓	✓		
d. People who inject drugs (PWID)								
Determine whether patient is a currently injecting drugs	✓	✓	✓	✓	✓	✓	✓	✓
Determine if patient is in opiate substitution therapy (OST)	✓	✓	✓	✓	✓	✓	✓	✓
Determine hepatitis B virus (HBV) vaccination status	✓	✓	✓	✓	✓	✓	✓	✓
Diagnose and manage common infections (e.g. abscesses, pneumonia)	✓	✓	✓					
Recommend that patient consider enrolment in OST	✓	✓	✓	✓	✓	✓	✓	✓
Prepare patient for OST	✓	✓	✓	✓	✓	✓	✓	
Initiate patient on OST	✓	✓						
Monitor and support adherence to OST	✓	✓	✓	✓	✓	✓	✓	✓
Screen for signs and symptoms associated with methadone	✓	✓	✓	✓	✓	✓		
Adjust dose of substitution drug	✓	✓	✓					
Provide additional adherence support	✓	✓	✓	✓	✓	✓	✓	✓

	Physician	Non-Physician Clinician	Nurse	Laboratory Technician	Lay Provider	Community Health Worker	Peer	Self
Consider drug-drug interactions with methadone (e.g. efavirenz, protease inhibitors, rifampicin)	✓	✓	✓					
3. ART								
a. Preparation for ART								
Explain goal, benefit and risks of ART	✓	✓	✓	✓	✓	✓	✓	
Counsel patient on the importance of adherence and explore options to maintain long-term adherence	✓	✓	✓	✓	✓	✓	✓	
Explain food/other diet restrictions where needed	✓	✓	✓	✓	✓	✓	✓	
Request relevant baseline laboratory tests	✓	✓	✓					
b. Prescription and Initiation of ART								
Recognize the potential for drug-interactions with other medications or substances	✓	✓	✓	✓	✓	✓	✓	✓
Prescribe first-line ART including considerations for contraindications	✓*	✓*	✓*					
Prescribe second-line ART	✓*	✓*	✓*					
Prescribe third-line ART	✓							
c. Manage patient records (or patient record/data management)								
Fill in register and pull patient folder at patient presentation	✓	✓	✓	✓	✓	✓	✓	
Ensure good patient files maintenance	✓	✓	✓	✓	✓	✓		
Complete medical record (paper/electronic)	✓	✓	✓	✓	✓	✓		
Review registers regularly for quality	✓	✓	✓		✓			
Prepare and submit monthly cohort analysis	✓	✓	✓		✓			

The third 90: 90% of all people receiving antiretroviral therapy will have viral suppression

	Physician	Non-Physician Clinician	Nurse	Laboratory Technician	Lay Provider	Community Health Worker	Peer	Self
1. ARV routine refills (at community or facility level)								
Prepare refills as prescribed, including pre-packs	✓	✓	✓					
Dispense refills as prescribed, including pre-packs	✓*	✓*	✓*	✓*				
Distribute refills as prescribed, including pre-packs	✓*	✓*	✓*	✓*	✓*	✓*	✓*	

2. Adherence support	Physician	Non-Physician Clinician	Nurse	Laboratory Technician	Lay Provider	Community Health Worker	Peer	Self
Conduct self-reported adherence check	✓	✓	✓	✓	✓	✓	✓	✓
Provide health talks, education and support	✓	✓	✓	✓	✓	✓	✓	
Track stable client into differentiated model of care: including multi-month refills, decentralized refills, enrollment in clubs/groups (where available), and lower frequency clinic visits	✓	✓	✓	✓	✓	✓	✓	
Organize and convene community ART group	✓	✓	✓	✓	✓	✓	✓	✓
Organize and convene facility ART club	✓	✓	✓	✓	✓	✓	✓	✓
Provide enhanced adherence counselling and support	✓	✓	✓	✓	✓	✓	✓	✓
Identify client that has missed a refill or clinical visit (defaulter tracing)	✓	✓	✓	✓	✓	✓	✓	
Call or send a text message to client	✓	✓	✓	✓	✓	✓	✓	
Activate passive tracing: send a letter to community contact/community health worker	✓	✓	✓	✓	✓	✓		
Trace the client	✓	✓	✓	✓	✓	✓	✓	
Record the client as being lost to follow up in patient record and register	✓	✓	✓			✓		
Re-assign client to routine clinical management (alternative to fast-track) as needed (e.g. missed appointments, viral load result, signs and symptoms)	✓	✓	✓					

3. Clinical monitoring	Physician	Non-Physician Clinician	Nurse	Laboratory Technician	Lay Provider	Community Health Worker	Peer	Self
Take vital signs (weight etc.)	✓	✓	✓	✓	✓	✓	✓	✓
Order a viral load test (or CD4 test where viral load not available)	✓	✓	✓	✓	✓	✓		
Collect finger/heel stick blood samples for viral load testing (or CD4)	✓	✓	✓	✓	✓	✓		
Prepare and ship DBS specimens for viral load	✓	✓	✓	✓	✓	✓		
Conduct a standard lab-based viral load test				✓				
Conduct a POC viral load test	✓	✓	✓	✓				
Collection of results from laboratory	✓	✓	✓	✓	✓	✓	✓	
Communicate viral load result to client	✓	✓	✓	✓	✓	✓		
Activate passive tracing: call/text/letter the client to present to facility for detectable viral load results	✓	✓	✓	✓	✓	✓		

4. Management of treatment failure	Physician	Non-Physician Clinician	Nurse	Laboratory Technician	Lay Provider	Community Health Worker	Peer	Self
Recognize and manage immune reconstitution syndrome	✓	✓	✓					
Manage common symptoms (weight loss, nausea, fever, diarrhoea, trouble sleeping, anxiety, etc.)	✓	✓	✓					
Recognize self-limiting ARV drug side-effects and encourage clinic visit when necessary	✓	✓	✓	✓	✓	✓	✓	✓
Switch to alternative first-line ARV regimens	✓	✓	✓					
Recognize treatment failure from clinical symptoms	✓	✓	✓			✓		
If viral load >1000 copies/ml refer for enhanced adherence support	✓	✓	✓	✓	✓	✓		
Provide enhanced adherence support	✓	✓	✓	✓	✓	✓	✓	
Order a second viral load for treatment failure suspects	✓	✓	✓			✓		
Conduct a second viral load for treatment failure suspects				✓				
If confirmation of first-line treatment failure, identify second-line regimen	✓	✓	✓					
Switch to second-line ARV regimens	✓	✓						
If CD4 is required, request test	✓	✓	✓					
Conduct CD4 test				✓				
Manage mild opportunistic infections after initiation of ART	✓	✓	✓					
If confirmation of second-line treatment failure, identify and prescribe an appropriate salvage ARV regimen for substitution or switch	✓	✓						
If drug resistance testing required, request test	✓	✓						
Collect blood sample or dry blood spot for DST	✓	✓	✓	✓	✓	✓		
Conduct DST				✓				

5. Manage patient records (or patient record/data management)	Physician	Non-Physician Clinician	Nurse	Laboratory Technician	Lay Provider	Community Health Worker	Peer	Self
Fill in register and pull patient folder at patient presentation	✓	✓	✓	✓	✓	✓	✓	
Ensure good patient files maintenance	✓	✓	✓	✓	✓	✓		
Complete medical record (paper/electronic)	✓	✓	✓	✓	✓	✓		
Review registers regularly for quality	✓	✓	✓		✓			
Prepare and submit monthly cohort analysis	✓	✓	✓		✓			

Priorities for Rapid Implementation: WHO evidence-based task shifting and sharing recommendations

Five different sets of formal guidelines and recommendations, published by WHO and approved by the WHO Guideline Review Committee, address key health workforce challenges that are critical to the attainment of the **90-90-90** target. The current evidence-based recommendations are outlined below as a reference. These have been organized according to the three 90s. If implemented, these evidence-based recommendations could help to address major roadblocks at country level to achieving the **90-90-90** target and should be considered a starting point for all countries working towards a comprehensive implementation check list for task shifting and sharing.

**WHO evidence-based task shifting and sharing recommendation
(Approved by the WHO Guideline Review Committee (GRC))**

Reference

The first 90

<p>The problem – testing not done regularly by lay / community providers or there is long turn-around time for results</p>	<p>Lay providers who are trained and supervised can independently conduct safe and effective HIV testing using rapid diagnostic tests (RDTs) (<i>strong recommendation, moderate-quality evidence</i>).</p>	<p>Guidance on provider-initiated HIV testing and counselling in health facilities. Geneva: World Health Organization; 2007 (http:// www.who.int/hiv/pub/vct/pitc2007/en).</p>
<p>The solution: Increase access to community and lay provider testing; move to rapid diagnostic tests; allow lay providers to take blood samples</p>	<p>Generalized HIV epidemic WHO recommends community-based HIV testing services with linkage to prevention, treatment and care services in addition to routinely offering PITC for all populations, particularly key populations (<i>strong recommendation, low-quality evidence</i>).</p>	<p>Guidance on provider-initiated HIV testing and counselling in health facilities. Geneva: World Health Organization; 2007 (http:// www.who.int/hiv/pub/vct/pitc2007/en).</p>
	<p>Concentrated HIV epidemic WHO recommends community-based HIV testing services, with linkage to prevention, treatment and care, in addition to PITC for key populations (<i>strong recommendation, low-quality evidence</i>).</p>	<p>Guidance on provider-initiated HIV testing and counselling in health facilities. Geneva: World Health Organization; 2007 (http:// www.who.int/hiv/pub/vct/pitc2007/en).</p>
	<p>Community-based HIV testing services for key populations linked to prevention, treatment and care services are recommended, in addition to routine facility-based HIV testing services, in all settings (<i>strong recommendation, low-quality evidence</i>).</p>	<p>Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations Geneva: World Health Organization; 2016 (http://www.who.int/hiv/pub/guidelines/keypopulations/en).</p>
	<p>Good practice statement: Trained and supervised non-laboratory staff including lay people can undertake blood finger prick for sample collection.</p>	<p>WHO 2016 Guidelines on the use of ARV drugs for treating and preventing HIV-second edition http://www.who.int/hiv/pub/arv/arv-2016/en/</p>

The second 90

<p>The problem: ARVS not reaching all in need as too few health care workers to initiate and distribute ARVs</p>	<p>Trained non-physician clinicians, midwives and nurses can initiate first-line ART (<i>strong recommendation, moderate-quality evidence</i>).</p>	<p>Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection: recommendations for a public health approach. Geneva: World Health Organization; 2013 (http://www.who.int/hiv/pub/guidelines/arv2013/download/en).</p>
	<p>Trained non-physician clinicians, midwives and nurses can maintain ART (<i>strong recommendation, moderate-quality evidence</i>).</p>	
	<p>Trained and supervised community health workers can dispense ART between regular clinical visits (<i>strong recommendation, moderate-quality evidence</i>).</p>	
<p>The solution: Task Shift and share ARV initiation and followup in the community; community ART distribution</p>	<p>Trained and supervised lay providers can distribute ART to adults, adolescents and children living with HIV (<i>strong recommendation, low-quality evidence</i>).</p>	<p>WHO 2016 Guidelines on the use of ARV drugs for treating and preventing HIV-second edition http://www.who.int/hiv/pub/arv/arv-2016/en/</p>

The third 90

<p>The problem: ARVS not reaching all in need as too few HCWs to initiate and distribute ARVs</p>	<p>Adherence support interventions should be provided to people on ART (<i>strong recommendation, moderate-quality evidence</i>).</p> <p>The following interventions have demonstrated benefit in improving adherence and viral suppression:</p> <ul style="list-style-type: none"> ▪ peer counsellors (<i>moderate-quality evidence</i>) ▪ mobile phone text messages (<i>moderate-quality evidence</i>) ▪ reminder devices (<i>moderate-quality evidence</i>) ▪ cognitive-behavioural therapy (<i>moderate-quality evidence</i>) ▪ behavioural skills training/medication adherence training (<i>moderate-quality evidence</i>) ▪ fixed-dose combinations and once-daily regimens (<i>moderate-quality evidence</i>) 	<p>WHO 2016 Guidelines on the use of ARV drugs for treating and preventing HIV-second edition http://www.who.int/hiv/pub/arv/arv-2016/en/</p>
	<p>Retention in care: Programmes should provide community support for people living with HIV to improve retention in HIV care (<i>strong recommendation, low-quality evidence</i>).</p> <p>The following community-level interventions have demonstrated benefit in improving retention in care:</p> <ul style="list-style-type: none"> ▪ package of community based interventions (<i>children low-quality and adults very low quality evidence</i>) ▪ adherence clubs (<i>moderate-quality evidence</i>) ▪ extra care for high-risk people (<i>very low-quality evidence</i>) 	
<p>The solution: Task Shift and share ARV initiation and followup in the community; community ART distribution</p>	<p>WHO 2016 Guidelines on the use of ARV drugs for treating and preventing HIV-second edition http://www.who.int/hiv/pub/arv/arv-2016/en/</p>	<p>WHO 2016 Guidelines on the use of ARV drugs for treating and preventing HIV-second edition http://www.who.int/hiv/pub/arv/arv-2016/en/</p>

Methods

The Task Shifting and Sharing for **90-90-90** check list for implementation has been developed based on country-level knowledge and direct experience of what has been tried and tested where HIV services are being delivered. The check list is supported by other existing evidence that is available in both published guidelines and recommendations relevant to task shifting and sharing, in peer reviewed literature and in “grey” literature such as policy documents and reports. This evidence has been reviewed and endorsed by global experts in human resources for health, diagnostics, and HIV treatment.

The steps in the process for development the check list can be summarized as follows:

1. On 1 February 2016, UNAIDS and the One Million Community Health Workers (1mCHW) Campaign announced a major strategic partnership to support the achievement of the **90-90-90** target and to lay the foundation for sustainable health and development.
2. On 2 February 2016, a meeting of the UNAIDS **90-90-90** Scientific and Technical Advisory Committee (STAC) made a recommendation that the 2008 WHO Global Recommendations and Guidelines on Task Shifting should be revisited and revised to reflect developments in the delivery of HIV services, particularly with regard to tasks now known to be successfully performed by community health workers. The STAC is a committee of the world’s top scientific and technical experts in the field of HIV/AIDS and exists to advise UNAIDS on how to support full and swift progress towards the **90-90-90** target.

3. In June 2016, UNAIDS and 1mCHW convened a working group to reassess the task allocation check list contained in the existing *2008 WHO Global Recommendations and Guidelines on Task Shifting* in the context of the changing environment and new technologies.
4. The working group met in Geneva, Switzerland and comprised global experts in human resources for health, diagnostics, and HIV treatment. The working group shared direct country experience, gauged professional health worker confidence, and drew on case studies of tasks being performed safely and effectively by different cadres of health workers. This information was used to populate an updated version of the check list published by WHO in 2008. The revised check list included new tasks and additional health worker cadres.
5. The draft check list was shared for review with over 200 experts in human resources for health, diagnostics, and HIV testing and treatment. Reviewers responded and provided inputs that were taken into consideration for the next version. The consultation included the following stakeholder organisations:

1mCHW; International Association of Providers of AIDS Care (IAPAC); African Society for Laboratory Medicine (ASLM); Clinton Health Access Initiative (CHAI); Médecins Sans Frontières (MSF) International; the U.S. President's Emergency Plan for AIDS Relief (PEPFAR); Association of Nurses in AIDS Care (ANAC); Columbia University; the Sustainable Development Solutions Network; Public Health Agency of Canada; Elizabeth Glaser Pediatric AIDS Foundation (EGPAF); Chemonics International; UNAIDS and its Co-Sponsors, USAID, as well as professional associations, civil society, donors and the UNAIDS **90-90-90** Scientific and Technical Advisory Committee (STAC), among others.
6. Between June and September 2016, a literature search of additional supporting evidence was conducted and key sources listed.
7. In September 2016, the working group re-convened to analyse and discuss the consultation feedback and the results of the literature search. Representatives from WHO participated in this working group meeting and provided comments and revisions and corrections to the draft document. The check list was revised and compared with current WHO guidelines and recommendations. Additions were incorporated to clarify evidence-based WHO recommendations versus suggestions for task shifting and sharing based on country experience.

A total of over 200 experts and stakeholders have participated in the development and review of the check list.

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3. *WHO consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection, recommendations for a public health approach, second edition, 2016*, (available at: <http://www.who.int/hiv/pub/arv/arv-2016/en/>)
4. *Task Shifting: Global Recommendations and Guidelines, WHO 2008* (available at <http://www.who.int/healthsystems/TTR-TaskShifting.pdf>)
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10. See page 20 for WHO evidence based recommendations for task shifting and sharing.
11. *International classification of health workers, Classification of health workforce statistics, World Health Organization, Geneva* (available at: http://www.who.int/hrh/statistics/Health_workers_classification.pdf?ua=1)
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