

Mental health and ageing in people with HIV

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ASK A QUESTION HERE



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**South London
and Maudsley**
NHS Foundation Trust

Disclosures

No relevant financial disclosures

The Demographic Revolution

PLWHIV IN THE UK (2024)



112,500

people living with diagnosed HIV

- ✓ ~96% are on antiretroviral therapy
- ✓ ~97% have a suppressed viral load
- ✓ Life expectancy is approaching that of the general population

KEY MESSAGES



PLWHIV are living longer
Thanks to effective ART



The population is ageing
More people over 50 and 65

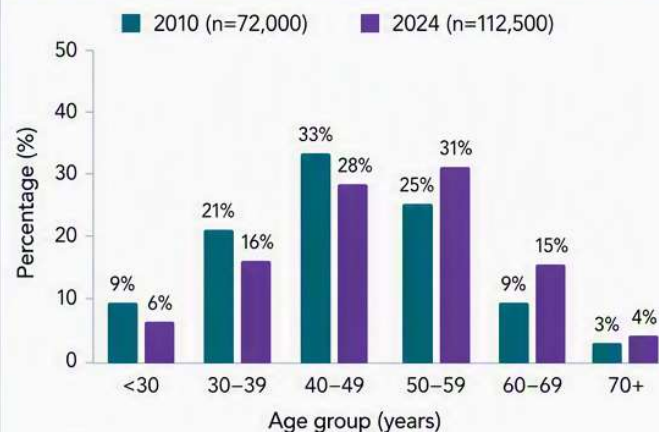


Increasing complexity
Multimorbidity, frailty, mental and cognitive health



Services must adapt
To support healthy ageing and quality of life

AGE DISTRIBUTION OF PLWHIV IN THE UK



In 2024, **50%** of PLWHIV are aged 50 or over compared with 28% in 2010

MEDIAN AGE OF PLWHIV

2010
43
years



2024
51
years



Median age is now
~10 years
higher than in 2010

THE AGEING WAVE

Growth in the number of PLWHIV aged 50+

2010
(28%)



20,000

2024
(50%)



56,000



The number of PLWHIV aged 50+ has increased by **~180%** since 2010

GEOGRAPHIC VARIATION (2024)

Proportion of PLWHIV aged 50+ by region

- ≥ 55%
- 50 - 54%
- 45 - 49%
- < 45%



Higher proportions of older PLWHIV in London, the South East and urban areas



Ageing with HIV is now the norm – not the exception.
Our services, research and policies must reflect this reality.



More multimorbidity and frailty



Greater risk of neurocognitive impairment

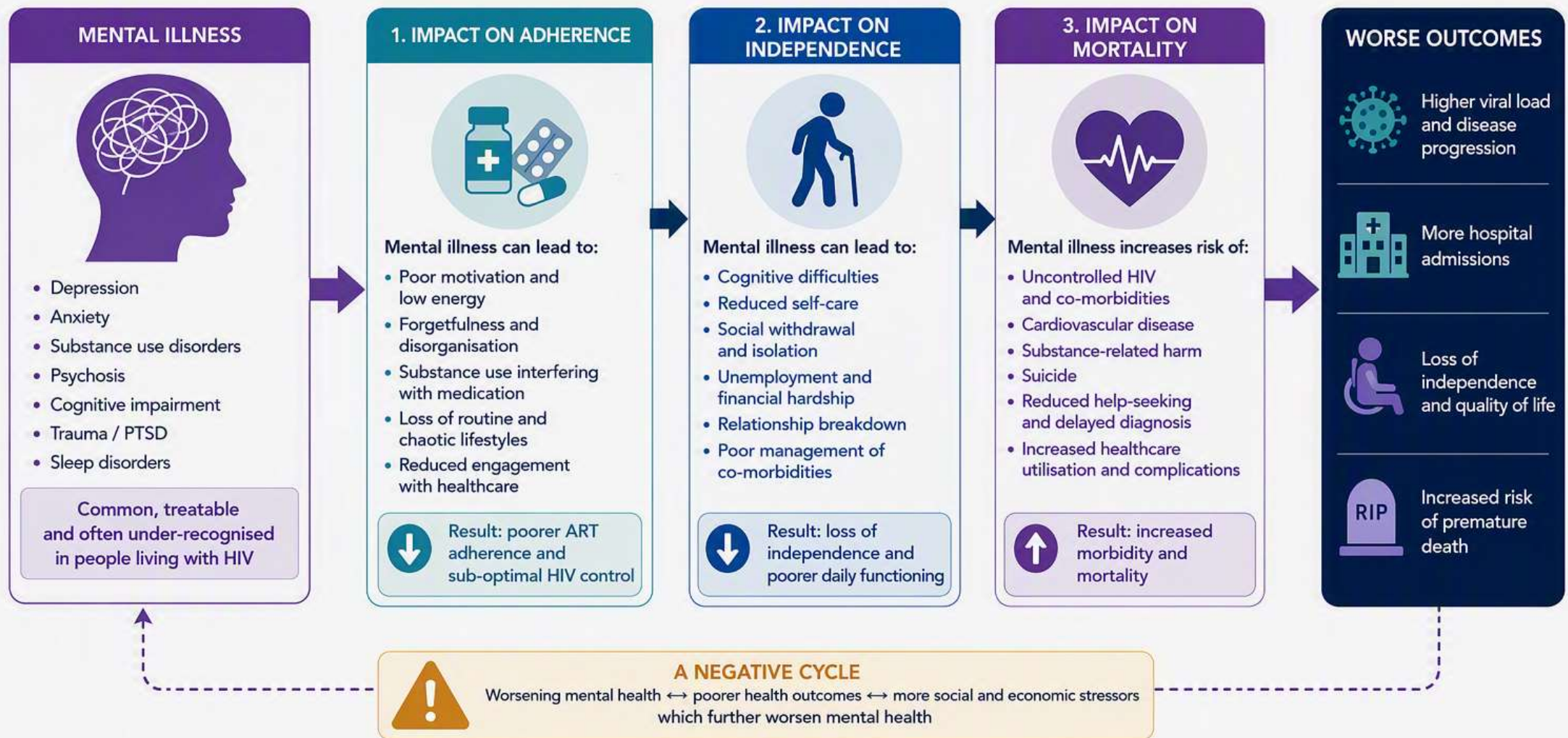


Mental health and wellbeing are central to healthy ageing

Sources: UKHSA HIV Data Tables 2024; BHIVA Audit 2024; Public Health England HIV in the UK 2023

PLWHIV = People living with HIV | ART = Antiretroviral therapy

Mental Health: Why It Matters



The Triple Burden of Ageing with HIV

HIV, ageing and comorbidity – interacting factors that impact brain health, mental health and function



HIV-Associated Brain Injury (HABI)

HABI can be driven by both ongoing (active) processes and the legacy of earlier brain injury. It interacts with ageing and comorbidity, increasing vulnerability to cognitive and functional difficulties.



HIV-related factors

- Chronic immune activation and inflammation
- HIV-associated brain injury (HABI)
- Past severe immunosuppression and opportunistic CNS infection
- Antiretroviral treatment (efficacy, CNS penetration, side effects)
- Stigma and psychosocial impact



Age-related factors

- Normal brain ageing
- Increased risk of neurodegenerative disease
- Frailty and reduced physiological reserve
- Sensory impairment (vision, hearing)
- Social changes (retirement, bereavement, isolation)



The bigger picture

These three domains often coexist and interact, increasing the risk of cognitive, mental health and functional difficulties in older people living with HIV.



Greater risk of cognitive, mental health and functional difficulties



Clinical implications

- ✓ Take a holistic, biopsychosocial approach
- ✓ Identify and treat reversible contributors
- ✓ Optimise physical and mental health
- ✓ Review medication and consider deprescribing where appropriate
- ✓ Support brain health, activity and social connection



Comorbidities and lifestyle factors

- Cardiovascular and metabolic disease (hypertension, diabetes, stroke)
- Mental health conditions (depression, anxiety)
- Substance use (alcohol and other drugs)
- Sleep disorders (e.g. sleep apnoea)
- Polypharmacy and drug interactions
- Lifestyle factors (physical activity, diet, smoking)



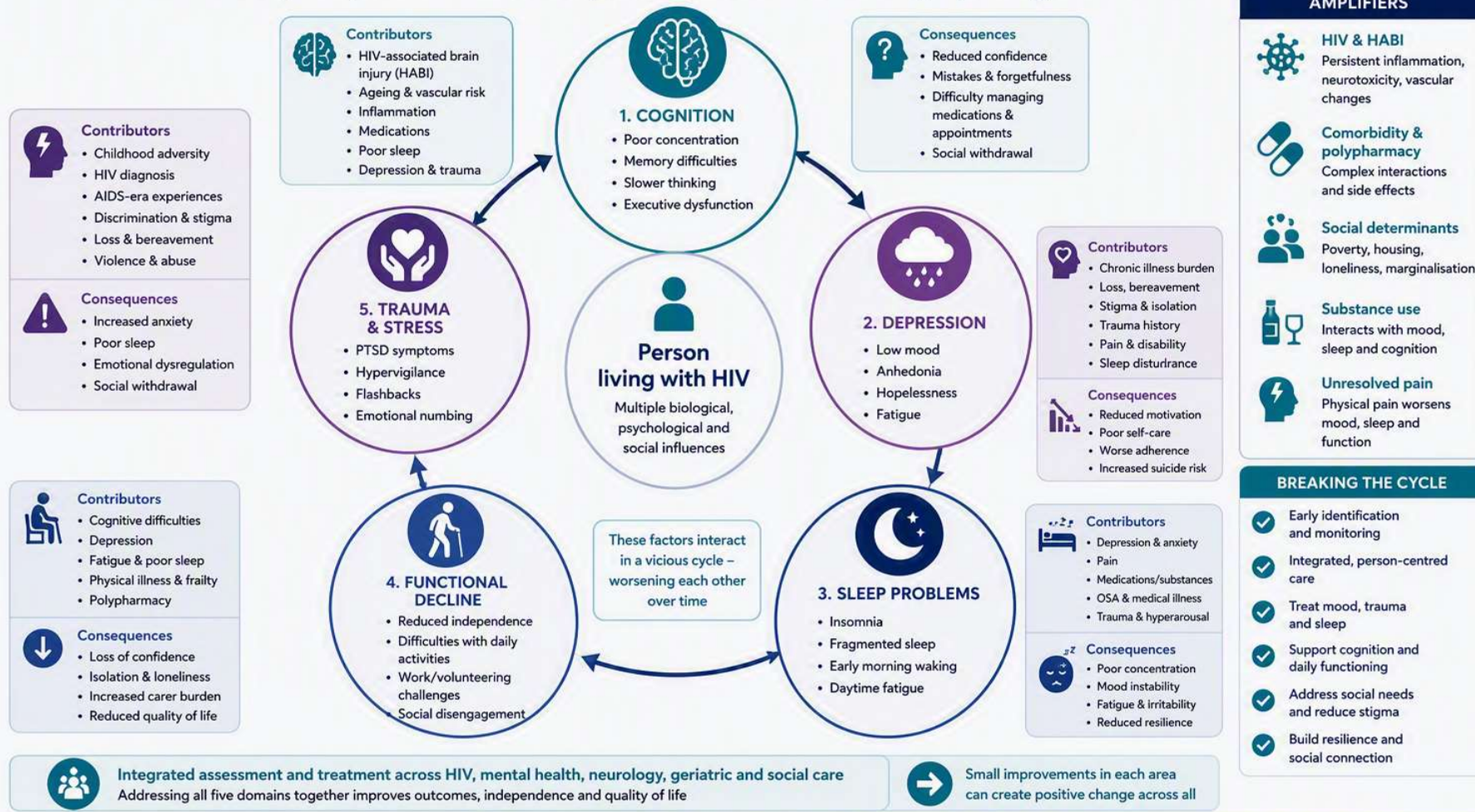
Key message

Cognitive and mental health problems in older people with HIV are usually multifactorial. Addressing the triple burden can improve quality of life, function and independence.

What We See in CASCAID

Cognition, depression, trauma, sleep and functional decline

A dynamic, bidirectional relationship that can accelerate over time in people living with HIV



HIV Associated Brain Injury (HABI)

ACTIVE HABI

Potentially modifiable



Ongoing brain changes despite effective treatment



Ongoing neuroinflammation

Chronic immune activation



Cerebrovascular disease

Vascular risk factors and metabolic health



Sleep disturbance

Poor sleep quality and sleep apnoea



Depression and anxiety

Common and potentially reversible



Frailty and multimorbidity

Ageing and coexisting health conditions



Polypharmacy

Medication side effects and drug interactions



Typical clinical features

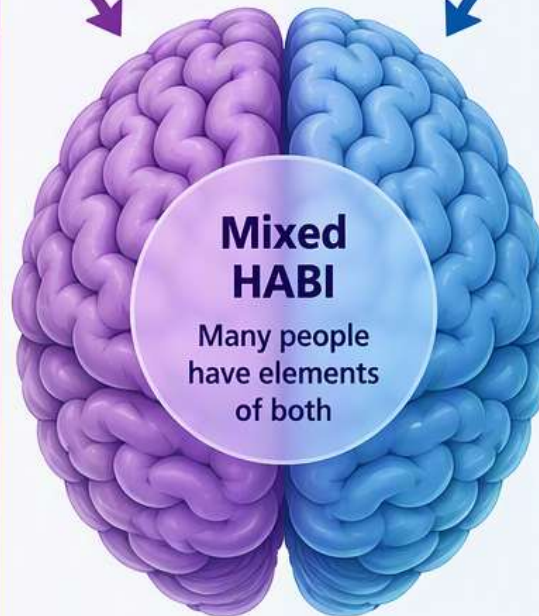
- Cognitive slowing
- Poor concentration
- Executive dysfunction
- Fluctuating symptoms



Clinical goal

Identify and treat reversible contributors

Different pathways
A shared impact
A personalised approach



Mixed HABI

Many people
have elements
of both

Assessment should evaluate:



Mental health



Frailty



Sleep



Medication burden



Vascular risk factors



Functional impact

LEGACY HABI

Historical brain injury



Residual effects of earlier HIV-related brain injury



Previous uncontrolled HIV

Higher viral load, lower CD4 counts



Historical severe immunosuppression

Including past opportunistic CNS infection



Earlier neurotoxicity and inflammation

From HIV and/or earlier treatments



Established structural brain injury

Residual changes that may persist



Typical clinical features

- Persistent executive dysfunction
- Memory difficulties
- Slowed information processing
- Generally static or slowly progressive

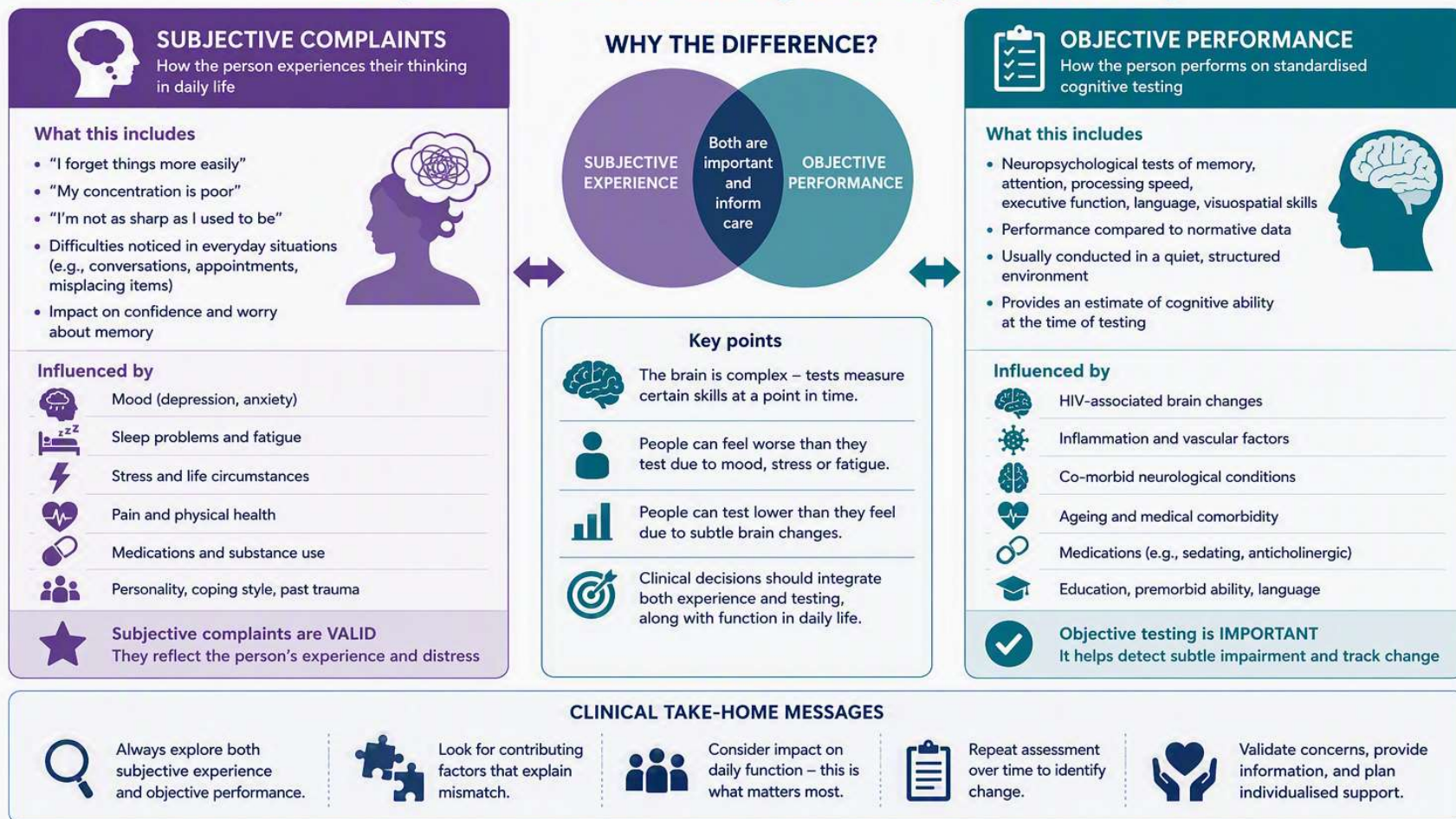


Clinical goal

Rehabilitation, compensation and support

Subjective vs Objective Cognitive Complaints

How a person feels about their thinking vs how they perform on testing



HABI Versus Dementia

Cognitive change in older people living with HIV is often multifactorial – careful assessment is essential

CLUES FROM THE HISTORY



Features favouring HABI

- Longstanding HIV infection
- Past CNS opportunistic infections
- Fluctuating cognition
- Slower processing speed > memory
- Prominent fatigue, sleep disturbance
- Depression, anxiety, trauma history
- Substance use (past/present)
- ARV neurotoxicity / interactions



Features favouring neurodegenerative dementia

- Insidious onset, progressive decline
- Prominent episodic memory loss
- Language and visuospatial deficits
- Strong family history
- Parkinsonism / cortical signs
- Age >70 with significant neurodegeneration

COMMON OVERLAP



- Vascular risk factors
- Inflammation
- Polypharmacy
- Depression / apathy
- Sleep disturbance

A STEPWISE APPROACH TO DIAGNOSIS



FEATURE	HABI	NEURODEGENERATIVE DEMENTIA (e.g. Alzheimer's disease)
Onset & course	Variable; stepwise or fluctuating May stabilise with treatment	Insidious, gradual, relentlessly progressive
Cognitive profile	Attention, processing speed, executive dysfunction > memory	Early prominent episodic memory impairment
Neuroimaging	Subcortical changes, white matter lesions, basal ganglia involvement	Medial temporal / hippocampal atrophy, cortical atrophy (temporoparietal)
HIV factors	Lower nadir CD4, viremia, coinfections, CNS infections, inflammation	No direct HIV association
Psychiatric symptoms	Common: depression, anxiety, apathy, irritability	May occur later; apathy more typical
Reversibility	Potentially treatable contributors (depression, sleep, inflammation, substances, meds)	Reversible causes less common
Functional pattern	Variable; can improve with treatment and support	Progressive loss of independence

COMMON PITFALLS



Attributing everything to HIV or aging



Missing treatable causes (depression, meds, sleep, B12 deficiency, syphilis)



Relying on screening alone – pattern matters



Lack of informant collateral



Diagnostic uncertainty – requires longitudinal follow-up

TAKE HOME MESSAGES

- ✓ Cognitive change in older PLWHIV is often multifactorial
- ✓ HABI and dementia can coexist
- ✓ Pattern of cognitive strengths and weaknesses is key
- ✓ Exclude and treat reversible contributors
- ✓ Longitudinal assessment improves diagnostic accuracy
- ✓ Person-centred care beyond the diagnosis



When in doubt – reassess over time and focus on what helps the person function

KEY MESSAGE



HABI is a potentially modifiable condition.
A careful, comprehensive and longitudinal approach helps distinguish it from neurodegenerative dementia and ensures optimal care.

REMEMBER



Diagnosis guides prognosis – but partnership, support and optimised modifiable factors improve outcomes regardless.



DEPRESSION IN OLDER PEOPLE LIVING WITH HIV

Prevalence, symptoms, assessment and treatment



Depression is common, treatable and a major driver of poor outcomes.
Early recognition and integrated care improve quality of life and treatment engagement.

1. PREVALENCE & RISK



of older PLWHIV experience clinically significant depressive symptoms

Risk increases with:

- Increasing age
- Longer duration of HIV and comorbidity burden
- HIV-associated brain injury (HABI) and inflammation
- Polypharmacy and drug interactions
- Stigma, isolation, trauma and bereavement
- Socioeconomic adversity and housing insecurity
- Substance use and alcohol misuse



Depression is often under-recognised or attributed to 'normal ageing' or other medical illness.

2. COMMON SYMPTOMS

Core symptoms



- Persistent low mood or emptiness
- Loss of interest or pleasure
- Fatigue and loss of energy
- Feelings of worthlessness or guilt
- Poor concentration and indecision
- Recurrent thoughts of death or suicide

Additional features in older PLWHIV



Sleep disturbance (insomnia or hypersomnia)



Change in appetite or weight



Psychomotor slowing or agitation



Memory and cognitive difficulties



Increased pain and physical symptoms



Symptoms may be masked by physical illness, fatigue, or medication side effects – ask directly.

3. ASSESSMENT



Clinical interview

Explore mood, anhedonia, sleep, appetite, energy, suicidal ideation and functional impact



Screening tools

PHQ-9, GDS-15, HADS (depression subscale)



Physical & neurological exam

Review comorbidities, pain, HABI, endocrine disorders, substance use



Investigations

FBC, U&E, LFTs, TFTs, B12, folate, vitamin D, CRP, HbA1c, syphilis serology; consider MRI if indicated



Medication review

Identify depressogenic drugs and interactions (including ART-psychotropic interactions)



Assess risk

Suicide risk, safeguarding, social circumstances and care needs



Always consider differential diagnosis: delirium, dementia, HABI, hypomania, substance effects, adjustment disorder.

4. TREATMENT & MANAGEMENT



Psychological interventions

- CBT, behavioural activation
- Interpersonal therapy
- Trauma-informed therapy
- Mindfulness and stress reduction



Pharmacological treatment

- SSRIs first line (e.g. sertraline, citalopram)
- SNRIs for pain or partial response (e.g. venlafaxine)
- Start low, go slow – monitor closely
- Check drug interactions (ART, benzos, opioids, methadone, antiretrovirals)
- Monitor for hyponatraemia, GI effects, QTc prolongation, falls



Lifestyle & social interventions

- Physical activity and exercise
- Sleep optimisation
- Reduce alcohol and substance use
- Social connection and peer support
- Address housing, financial and practical needs



Integrated, person-centred care addressing physical health, social factors and mental health leads to better adherence and outcomes.

IMPACT OF UNTREATED DEPRESSION



Poor ART adherence



More hospital admissions



Functional decline and loss of independence



Cognitive decline and poorer brain health



Reduced quality of life



Increased mortality



Higher risk of suicide

KEY MESSAGE

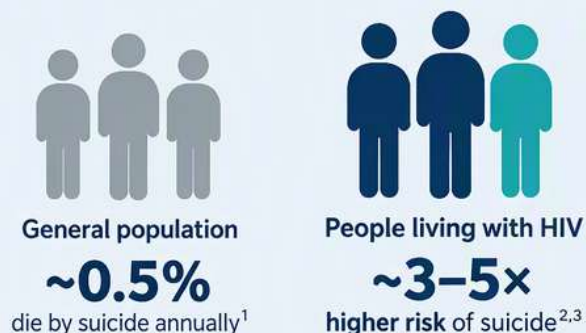


Depression in older PLWHIV is common, multifactorial and treatable. Early identification and integrated management improve lives.

Suicide Risk and Distress

Higher risk than the general population

People living with HIV (PLWH) have a higher risk of suicidal thoughts, self-harm and suicide compared with the general population.



Psychological distress is common

Older adults with HIV report high rates of depression, anxiety and distress.



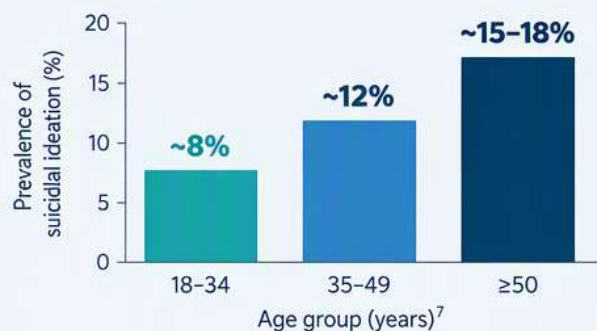
Risk is influenced by multiple factors

Suicide risk in older people with HIV is shaped by a combination of individual, social and clinical factors.



Suicidal thoughts increase with age

The prevalence of suicidal ideation tends to be higher in older age groups.



Warning signs

Be alert to signs of increased risk, especially in older adults with HIV.

- Persistent low mood or hopelessness
- Talking about death or suicide
- Social withdrawal or isolation
- Increased substance use
- Decline in physical health or functioning
- Recent loss (bereavement, relationships, health)
- Feelings of being a burden

What can help?

Suicide is preventable. A holistic, compassionate approach can reduce risk and improve wellbeing.

- Ask, listen, and take distress seriously**
Routine mental health screening in HIV care
- Provide timely access to psychological support**
e.g. counselling, CBT, trauma-informed care
- Tackle stigma and isolation**
Peer support and community connection
- Manage comorbidities and substance use**
Integrated, multidisciplinary care
- Promote hope, purpose and meaningful lives**
Focus on strengths, relationships and what matters

References: 1. WHO (2021). 2. Fazel et al. (2014). 3. Pirkis et al. (2020). 4. Rueda et al. (2016). 5. Skeen et al. (2020). 6. Oursler et al. (2021). 7. Emler et al. (2019).

Note: Prevalence estimates vary between studies and populations.

Anxiety Disorders in Older Adults Living with HIV

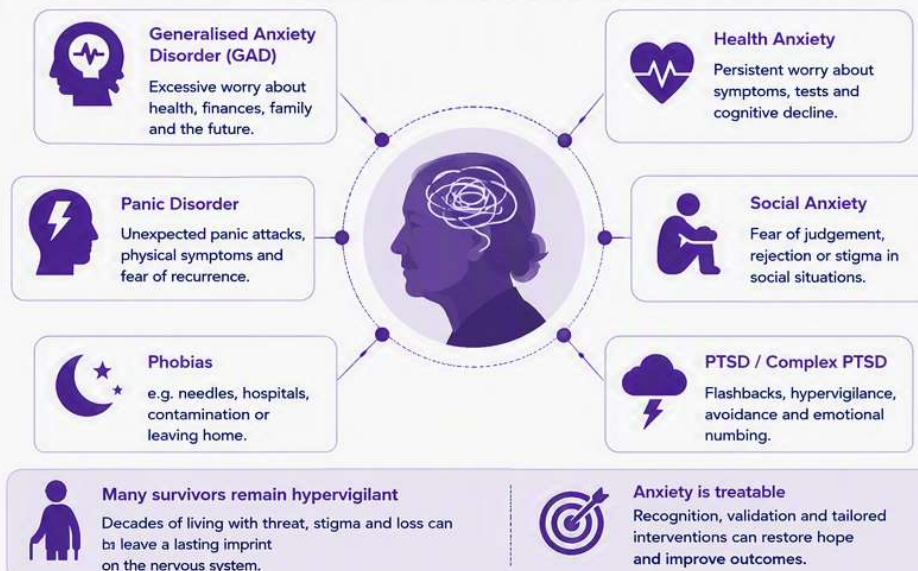
Common, often under-recognised and powerfully impact quality of life and engagement with care

Living with HIV across decades can create ongoing worry, hypervigilance and uncertainty about health, ageing and the future.

WHY ANXIETY IS COMMON IN OLDER PLWHIV

-  **Long-term stress exposure**
Decades of living with a stigmatised, life-limiting condition.
-  **Biological vulnerability**
Chronic inflammation, HABI, comorbid illness and medication effects.
-  **Psychological factors**
Trauma history, past losses, health anxiety and fear of decline.
-  **Social pressures**
Stigma, isolation, discrimination and financial insecurity.
-  **Uncertainty**
About the future, treatment changes, ageing and dependence.
-  **Anxiety is a normal response** to extraordinary life experiences – but when persistent, it becomes disabling.

COMMON ANXIETY DISORDERS



IMPACT OF ANXIETY

-  **Cognition**
Worry and tension impair attention, memory and decision-making.
-  **Sleep**
Anxiety disrupts sleep, leading to fatigue and poorer brain function.
-  **Adherence**
Avoidance, catastrophising and health worry reduce engagement with treatment and care.
-  **Function**
Avoidance and physical tension limit activity and independence.
-  **Quality of life**
Persistent anxiety reduces wellbeing and life satisfaction.
-  **Anxiety is associated with poorer health outcomes and increased service use and costs.**

KEY MAINTAINING FACTORS

-  **Avoidance**
Short-term relief but long-term worsening.
-  **Catastrophic thinking**
Magnifies threat and uncertainty.
-  **Physical tension**
Headaches, muscle tension, palpitations and breathlessness.
-  **Poor sleep**
Increases worry and emotional reactivity.
-  **Isolation**
Less support, more worry and rumination.
-  **Substance use**
May be used to cope, but increases anxiety overtime.

WHAT CAN HELP?

-  **Psychoeducation and validation**
-  **CBT and relaxation techniques**
-  **Address trauma and past experiences**
-  **Sleep optimisation**
-  **Physical activity and breathing exercises**
-  **Social connection and community support**
-  **Review medications and interactions**

CLINICAL PEARLS

- Ask about worry as well as low mood. Anxiety is often missed.
- Validate the impact of lifelong stress and stigma.
- Tailor treatment to cognition, frailty and patient preferences.
- Monitor and treat sleep problems.
- Always assess suicide risk.

RED FLAGS – SEEK URGENT HELP IF

- Severe panic or agitation
- Marked functional decline
- Suicidal thoughts
- Significant sleep loss
- Substance use escalation

KEY MESSAGE

-  Anxiety disorders in older people living with HIV are common, treatable and profoundly affect brain health, function and quality of life.
- Early recognition and integrated care make a real difference.**

Psychotic Disorders

Prevalence, assessment and treatment: a holistic, multidisciplinary approach

Psychosis is more common in older people living with HIV and has multiple causes. Accurate assessment and individualised treatment improve outcomes and quality of life.

1. PREVALENCE AND RISK FACTORS

HOW COMMON?



Higher rates of psychosis in PLWHIV compared with HIV-negative peers. Estimates 2–5% over lifespan; risk increases with age.

KEY RISK FACTORS



HIV and brain factors
HIV-associated brain injury (HABI), CNS inflammation, opportunistic infections, cerebrovascular disease



Ageing and comorbidity
Neurodegeneration, vascular risk, sensory impairment, frailty



Substance use
Alcohol, stimulants, cannabis, chemsex-related substances



Mental health and trauma
Depression, anxiety, PTSD, childhood or lifetime trauma



Medications
Polypharmacy, drug–drug interactions, corticosteroids, interferons, dopaminergic agents



Psychosocial factors
Atigma, isolation, bereavement, poverty, housing instability



Risk accumulates across the lifespan from biological, psychological and social exposures.

4. RED FLAGS – SEEK URGENT HELP



- Acute onset confusion or fluctuating consciousness
- New focal neurological signs or seizures
- Sudden behavioural change or severe agitation
- Suspected CNS infection or encephalitis
- Suicidal ideation or risk to self/others

2. ASSESSMENT AND DIAGNOSIS

STEPWISE ASSESSMENT



POSSIBLE CAUSES OF PSYCHOSIS IN OLDER PLWHIV



Think reversible. Treatable causes are common. Early differentiation prevents unnecessary treatment and improves outcomes.

3. TREATMENT AND MANAGEMENT

PRINCIPLES

- Identify and treat underlying causes
- Person-centred, trauma-informed care
- Start low, go slow
- Regular review of benefits and side effects
- Minimise polypharmacy and interactions
- Work in partnership with the person and carers



PHARMACOLOGICAL TREATMENT

- Use antipsychotics judiciously
- Start low, go slow
 - Monitor for metabolic, cardiac and neurological side effects
 - Clozapine rarely used – consider only in treatment-resistant cases
 - Consider long-acting formulations for adherence issues



NON-PHARMACOLOGICAL INTERVENTIONS

- Psychological interventions (CBT, psychoeducation)
- Manage sleep, pain, sensory impairment
- Address substance use
- Social support, housing, meaningful activity and community connection

KEY MESSAGES



Psychosis is common and multifactorial in older PLWHIV.



Thorough assessment is essential to identify reversible causes.



Integrated care improves outcomes and reduces relapse.



Person-centred, collaborative care builds trust and supports recovery.



Early intervention protects brain health, independence and quality of life.

5. WHO SHOULD BE INVOLVED?

- HIV specialist / physician
- Psychiatrist / neuropsychiatrist
- Clinical psychologist
- Neuropsychologist
- Neurologist (as indicated)
- Pharmacist
- Nursing, social work and peer support



With the right assessment and support, people can live well, stay connected and maintain hope.

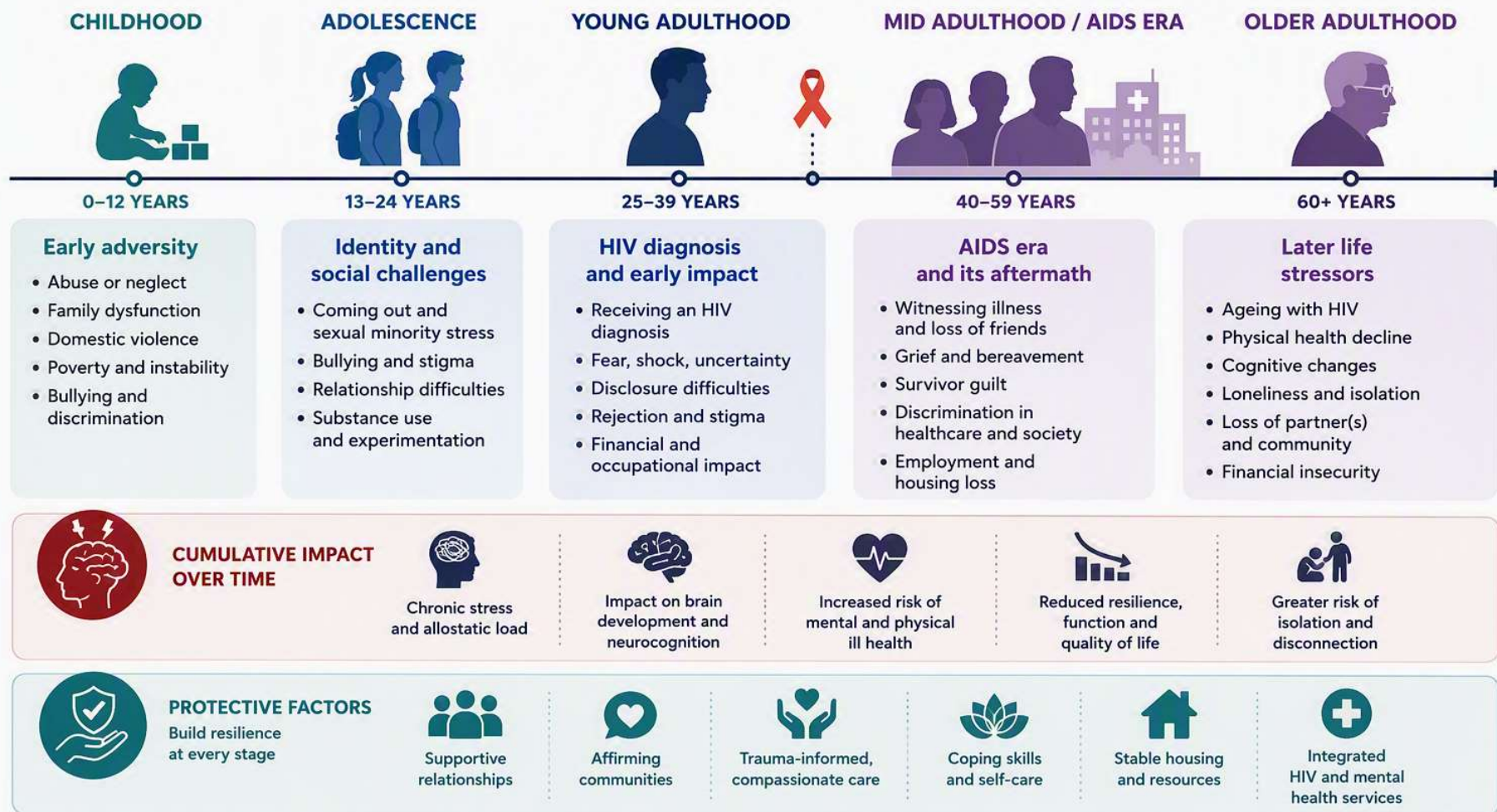
Sleep: The Forgotten Symptom

A bidirectional relationship – poor sleep and low mood feed each other



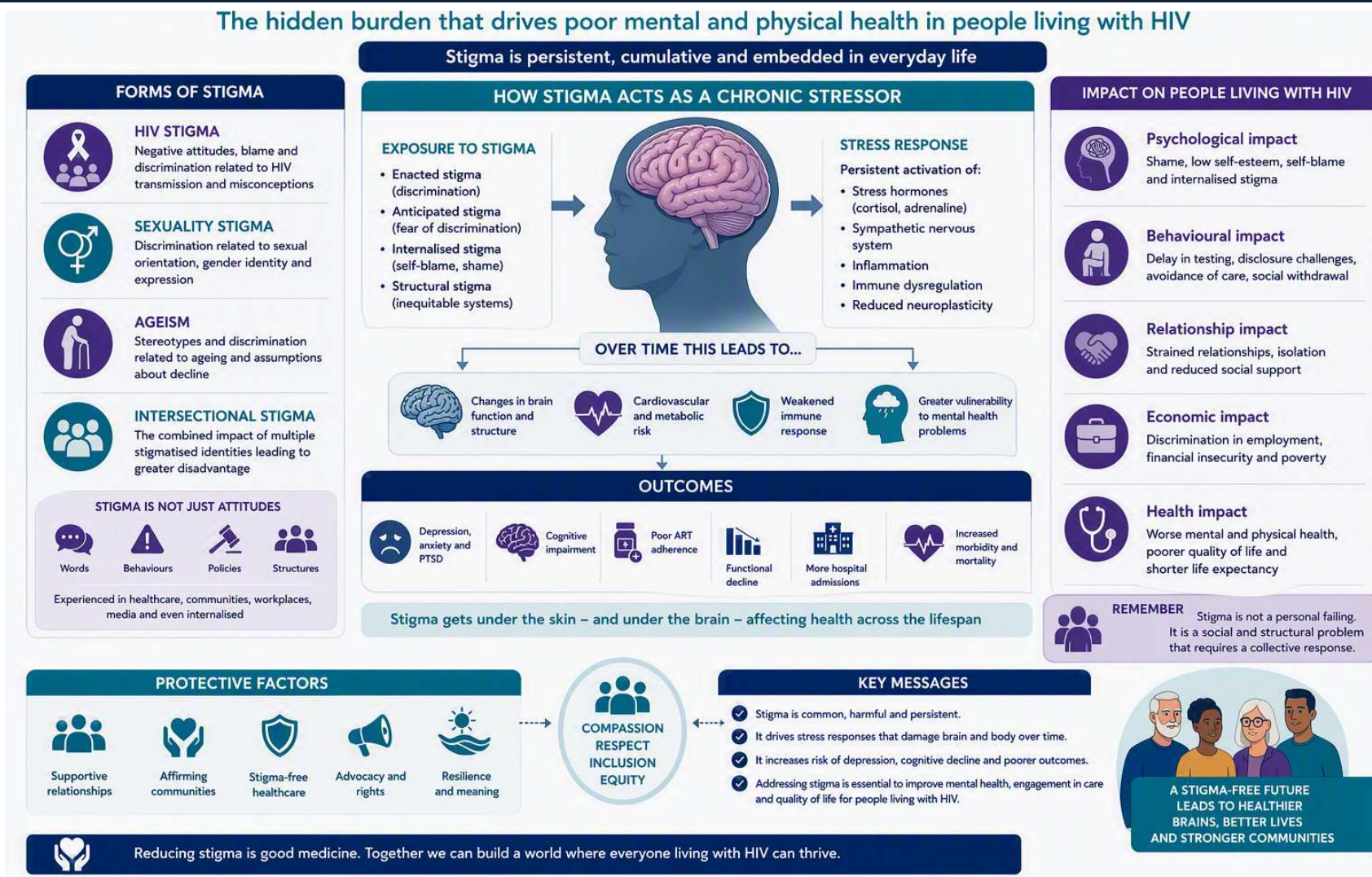
Trauma Across the Lifespan

Many people living with HIV carry multiple, overlapping traumas that shape mental health and wellbeing over time

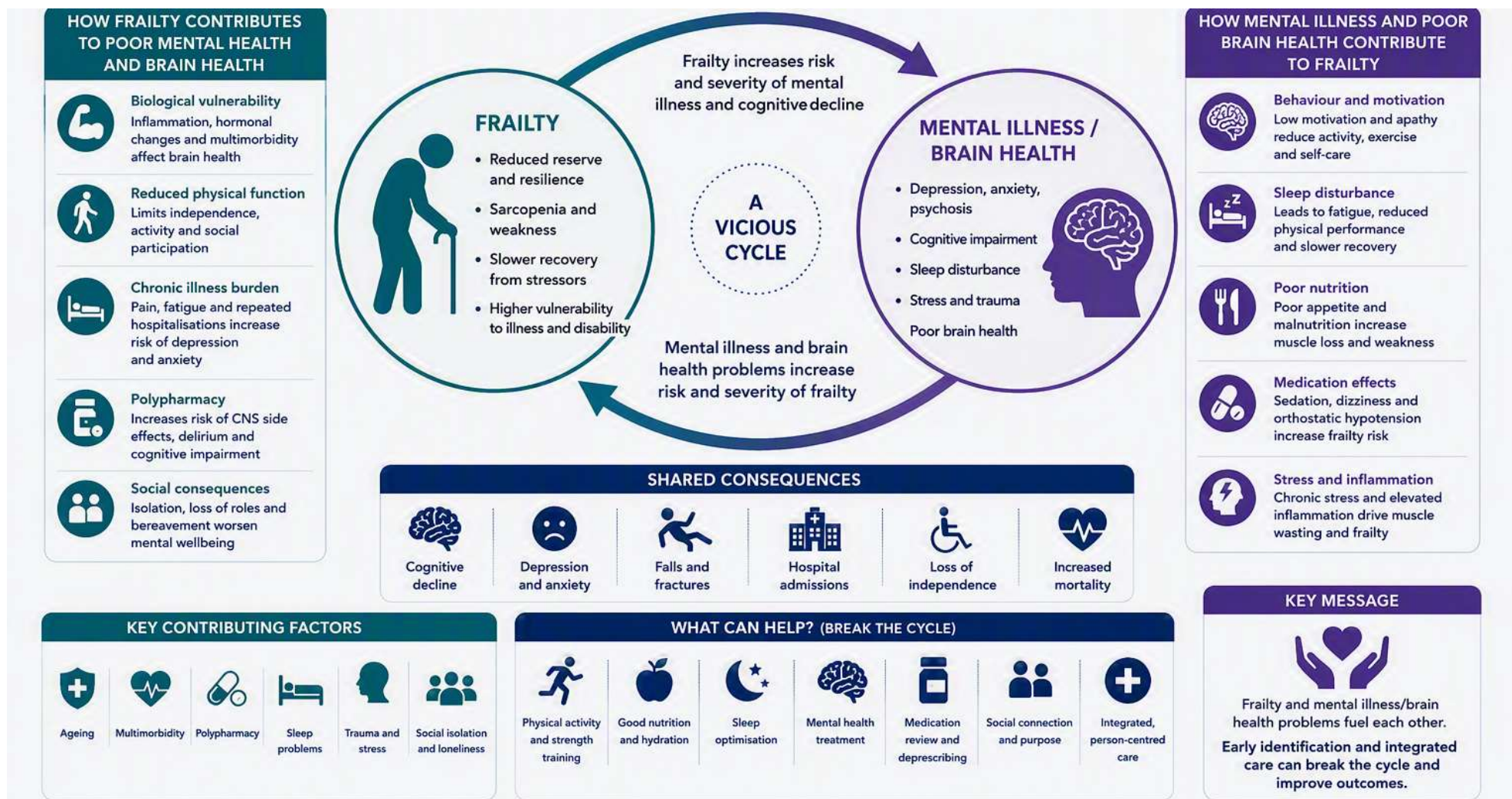


Stigma as a Chronic Stressor

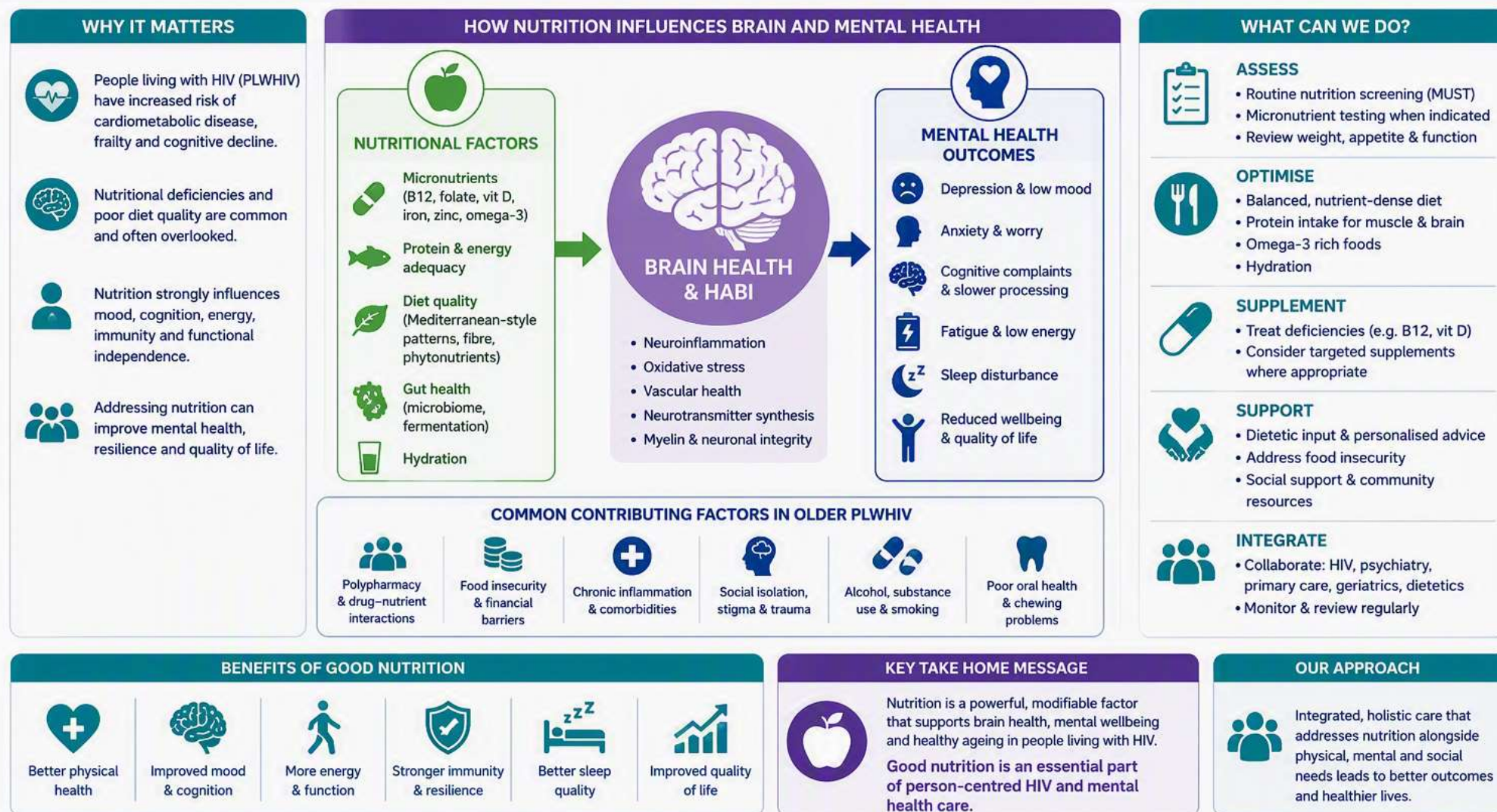
The hidden burden that drives poor mental and physical health in people living with HIV



Frailty and Brain Health



Nutrition & Mental Health in Older Adults Living with HIV



Polypharmacy and Mental Health

Many older people living with HIV take multiple medications for HIV, mental health and physical health conditions – increasing the risk of interactions and adverse effects.

COMMON MEDICATION CLASSES



ANTIRETROVIRALS

e.g. TAF, DTG, BIC, boosted PIs
Metabolism via CYP450 and transporters



PSYCHOTROPICS

e.g. antidepressants, antipsychotics, benzodiazepines, mood stabilisers



CARDIOVASCULAR AGENTS

e.g. antihypertensives, antiarrhythmics, statins, antiplatelets, anticoagulants



METABOLIC AGENTS

e.g. diabetes medications, thyroid replacement, lipid lowering agents



PAIN & INFLAMMATION

e.g. opioids, NSAIDs, corticosteroids, gabapentinoids



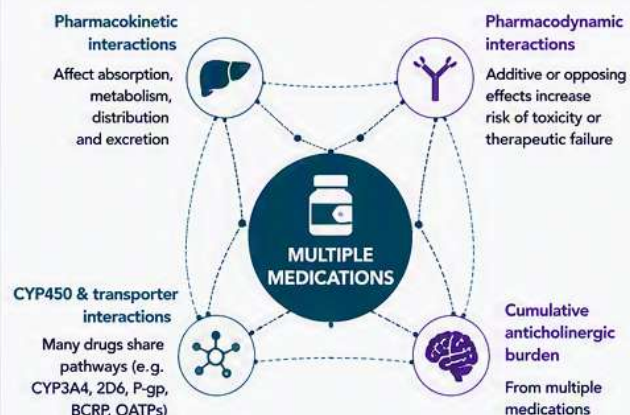
GI & OTHER AGENTS

e.g. PPIs, laxatives, bladder medications, supplements



Average older person with HIV often takes 8+ regular medications

1. INTERACTIONS: COMPLEX AND COMMON



HIGH RISK MEDICATION COMBINATIONS (EXAMPLES)



4. WHO IS AT GREATEST RISK?



Ageing
(>50 years)



Multimorbidity
& frailty



>5 regular
medications



Existing cognitive
impairment or
mental illness

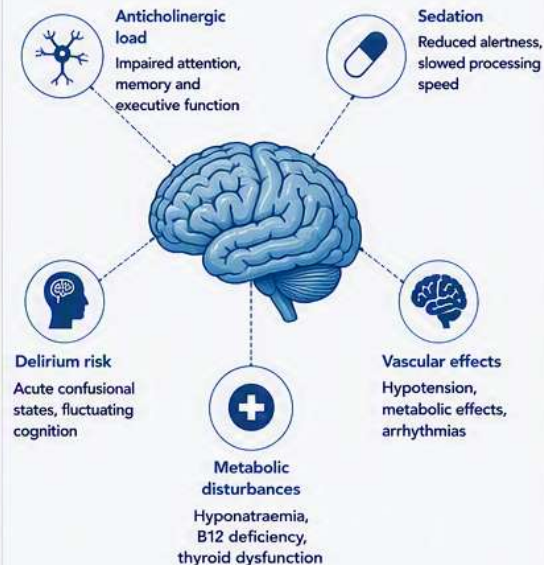


Renal / hepatic
impairment



Polypharmacy
present for >1 year

2. IMPACT ON COGNITION



Result: poorer cognition, reduced independence, medication errors and poorer quality of life

5. WHAT CAN HELP?

- ✓ Regular medication review (start low, go slow, but also stop)
- ✓ Use deprescribing tools and STOPP/START criteria
- ✓ Check for interactions (use digital tools, BNF, Liverpool HIV Interactions)
- ✓ Minimise anticholinergic burden
- ✓ Monitor cognition, mood, orthostasis and falls risk
- ✓ Involve patient and carers in shared decision making
- ✓ Coordinate care across HIV, primary care and mental health

3. IMPACT ON FALL RISK



Orthostatic hypotension
From antihypertensives, psychotropics, diuretics, vasodilators



Sedation & psychomotor impairment
From benzodiazepines, antipsychotics, opioids



Muscle weakness & deconditioning
Steroids, inactivity, frailty



Visual disturbance
Anticholinergics, opioids, hypotension



Gait & balance impairment
Neuropathy, vestibular dysfunction, cerebellar effects

Result: increased falls, fractures, hospital admissions and loss of independence

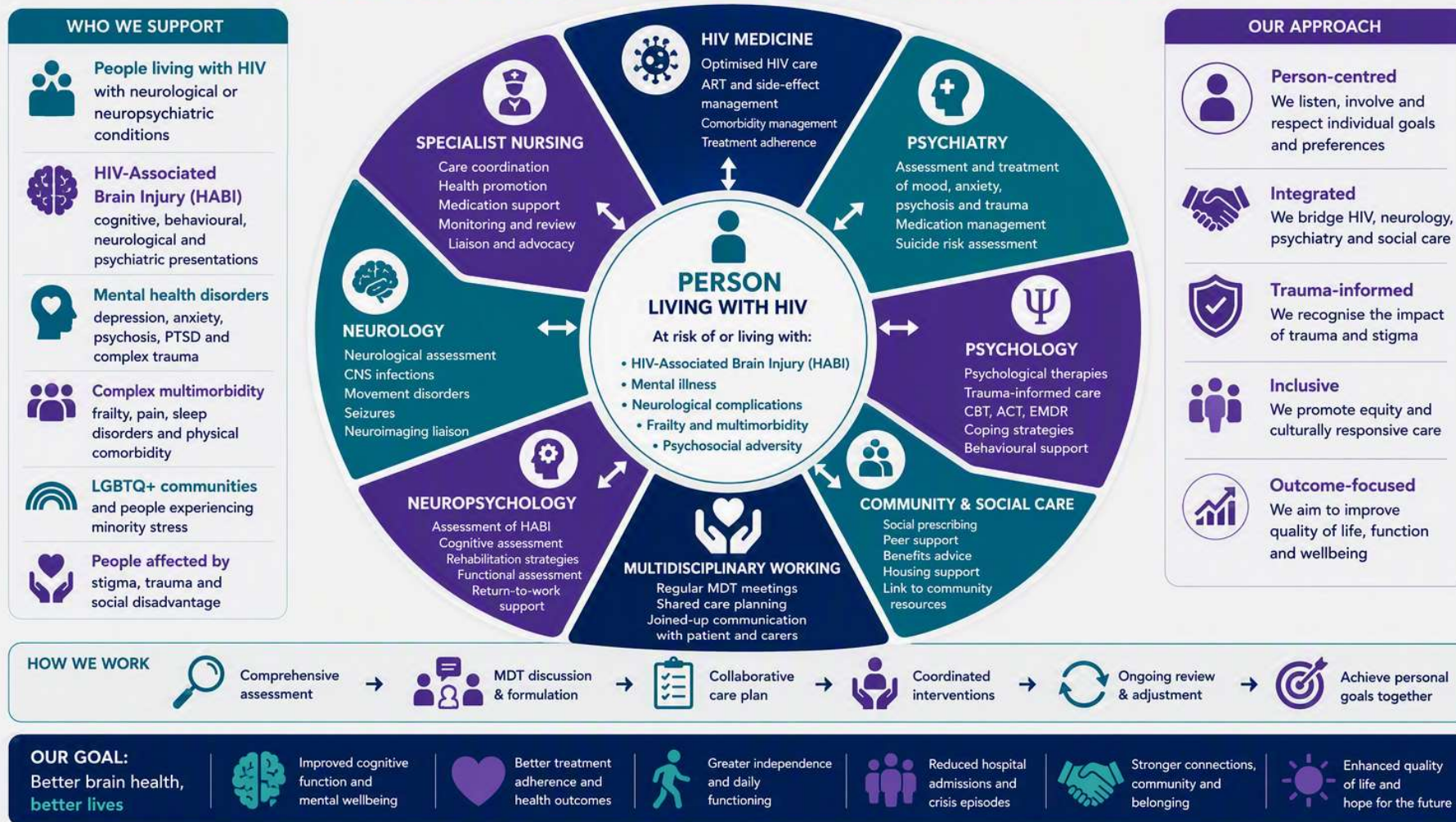


Person-centred, team-based care leads to safer medication use and better brain health outcomes

The CASCAID Model

Integrated neuropsychiatric care for people living with HIV

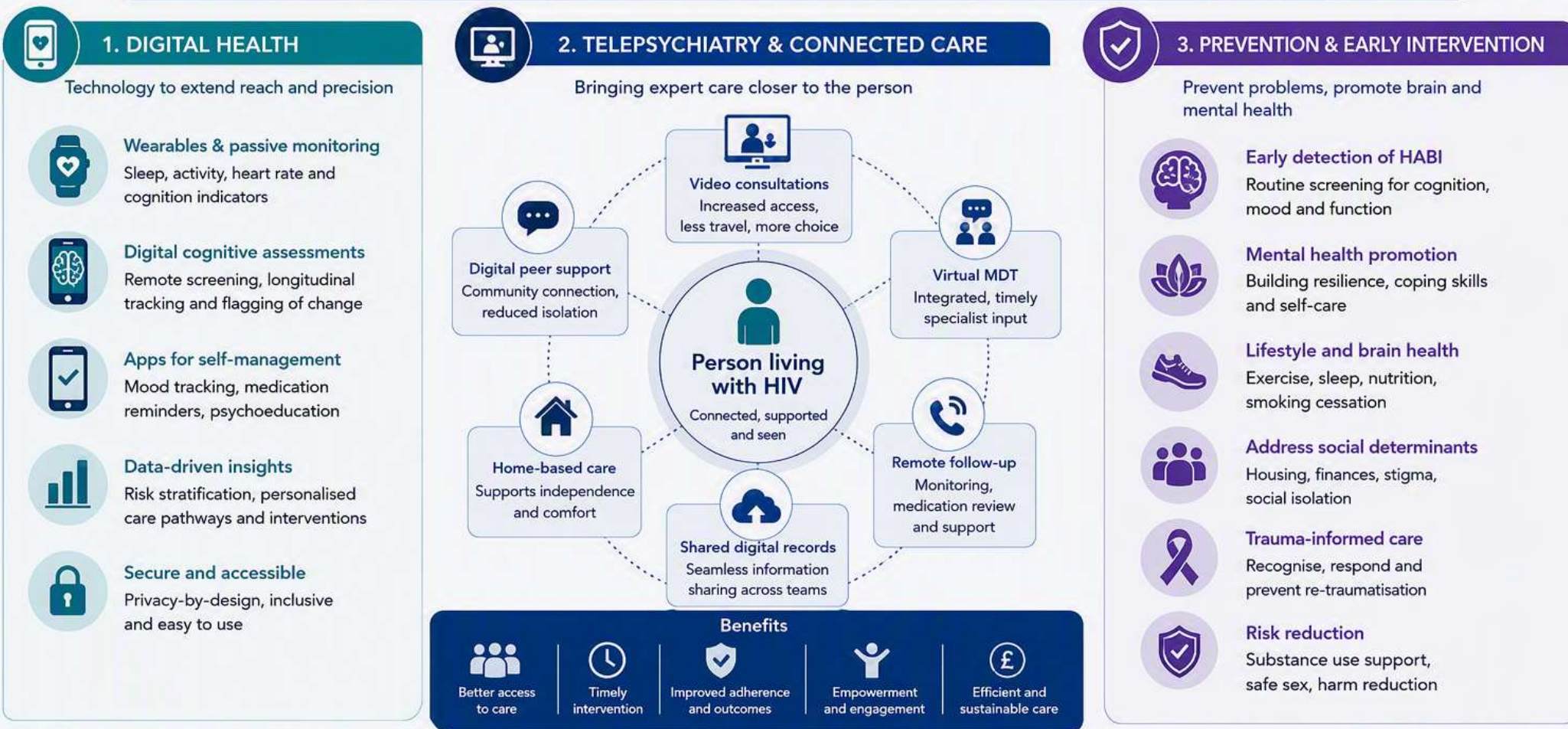
Expert assessment, treatment and support for HIV-Associated Brain Injury (HABI) and mental health conditions



Future Directions

Digital health, telepsychiatry and prevention

Innovating care to improve access, early detection, resilience and outcomes for people living with HIV



Take Home Message

Good mental health is central to successful ageing with HIV

Thank you for listening.

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