International Network of
Health Promoting Hospitals
& Health Services

Symposium Well-being of Healthcare Workers Task Force:
"Stronger Together: Reimagining Workforce Well-Being in a Time of Global Crisis"

Aver Cura di Chi Ci Cura: A Salutogenic Staff Wellbeing Program to Reduce Distress and Strengthen Workforce Resilience

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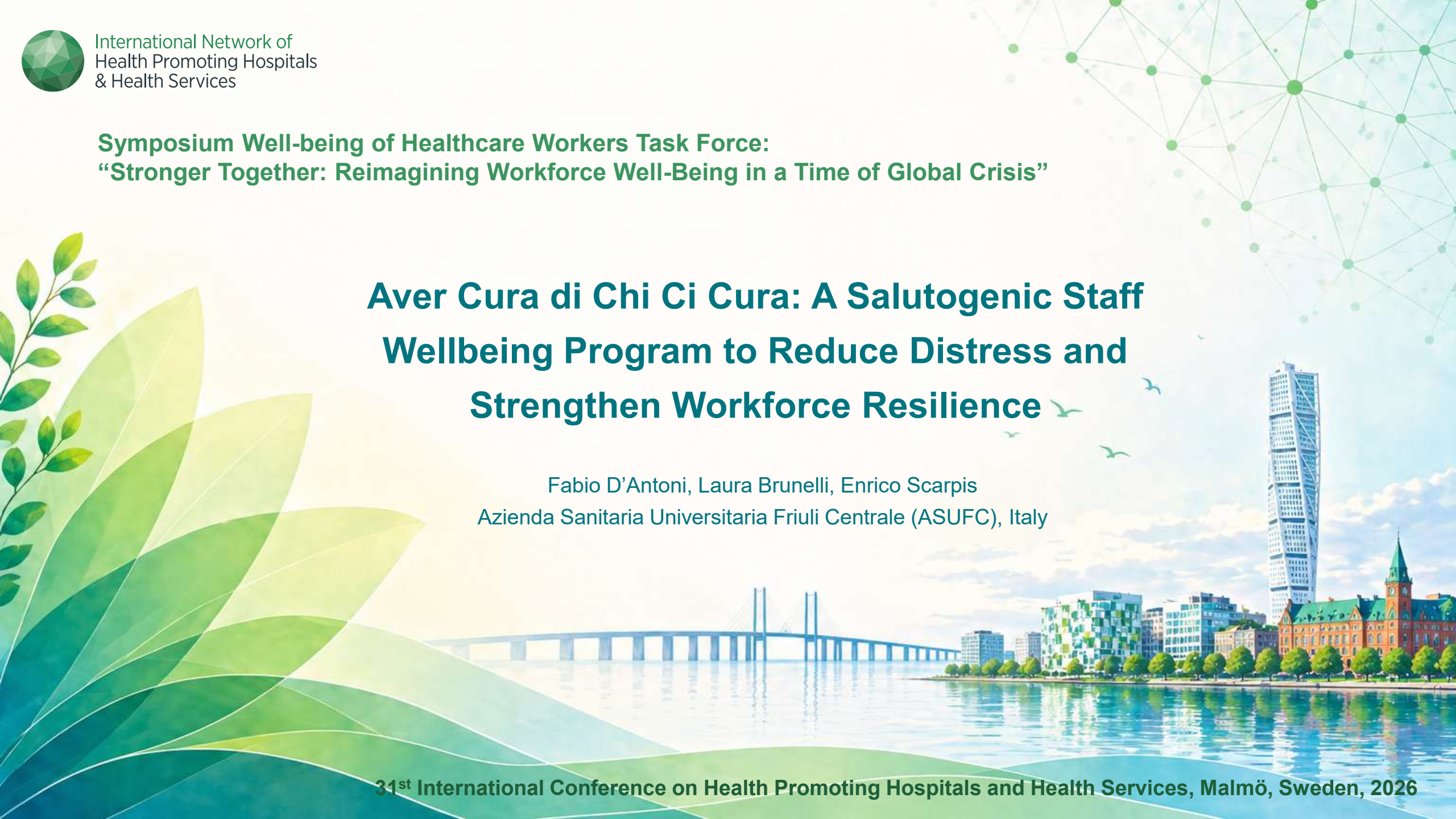
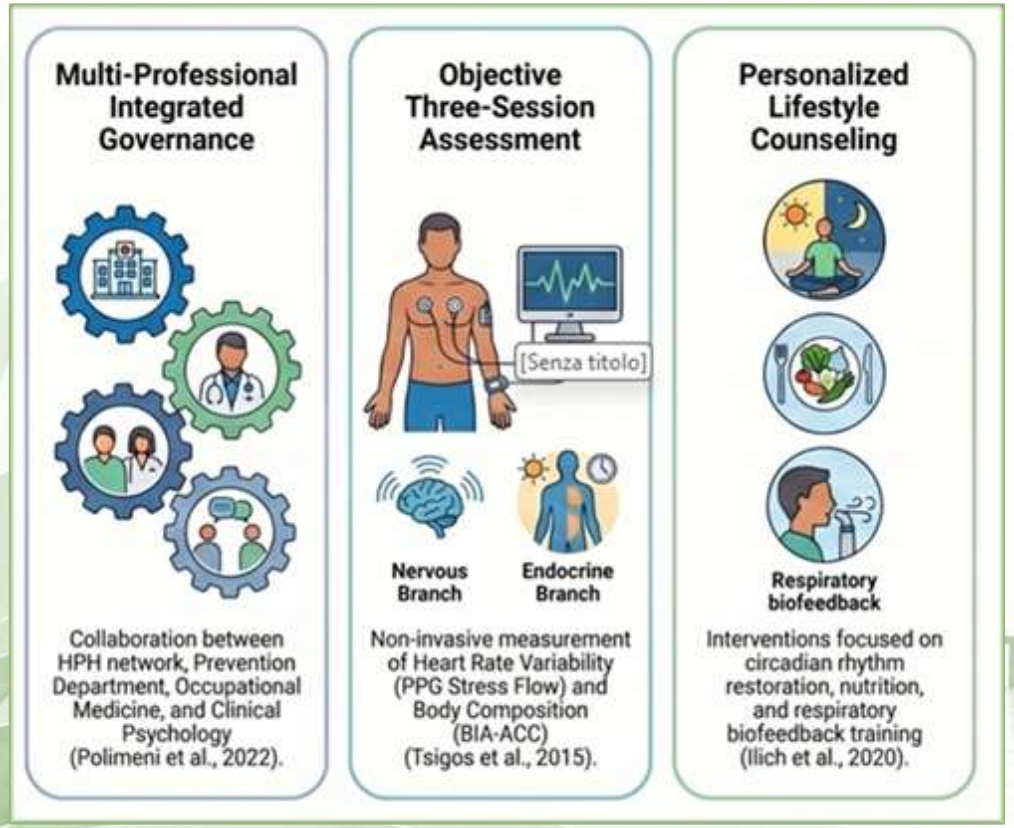


31st International Conference on Health Promoting Hospitals and Health Services, Malmö, Sweden, 2026

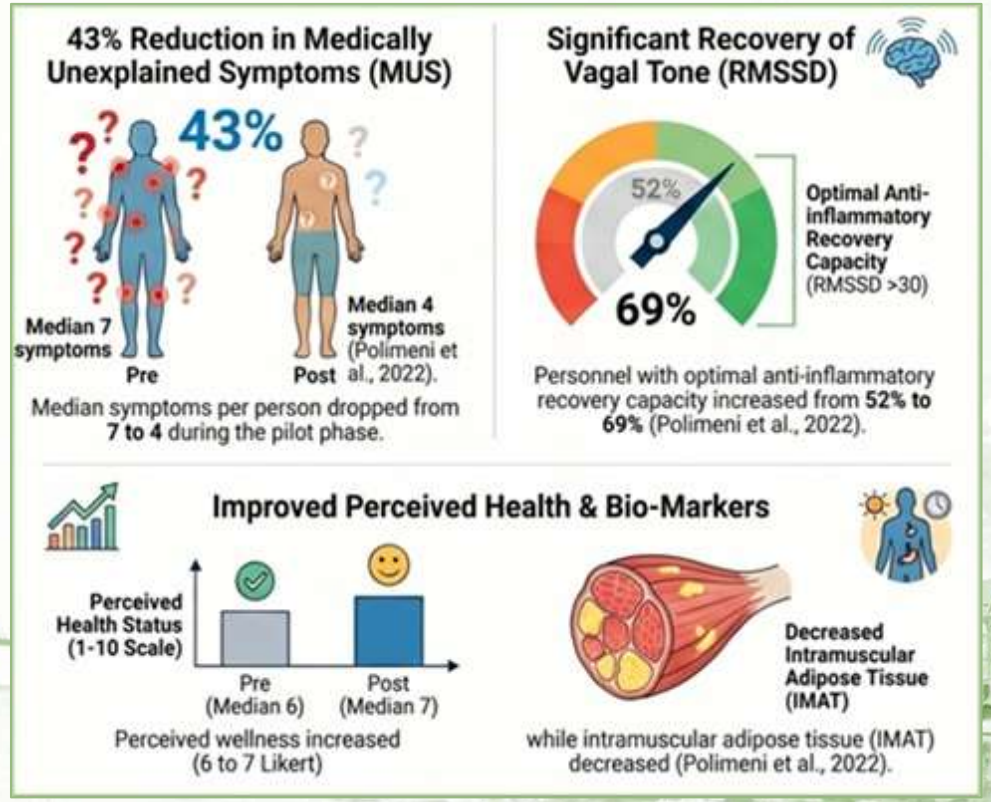
Taking Care of Those Who Care for Us

A Salutogenic Model of Healthcare Workforce Resilience

THE CLINICAL PATHWAY & ORGANIZATION



PILOT STUDY RESULTS



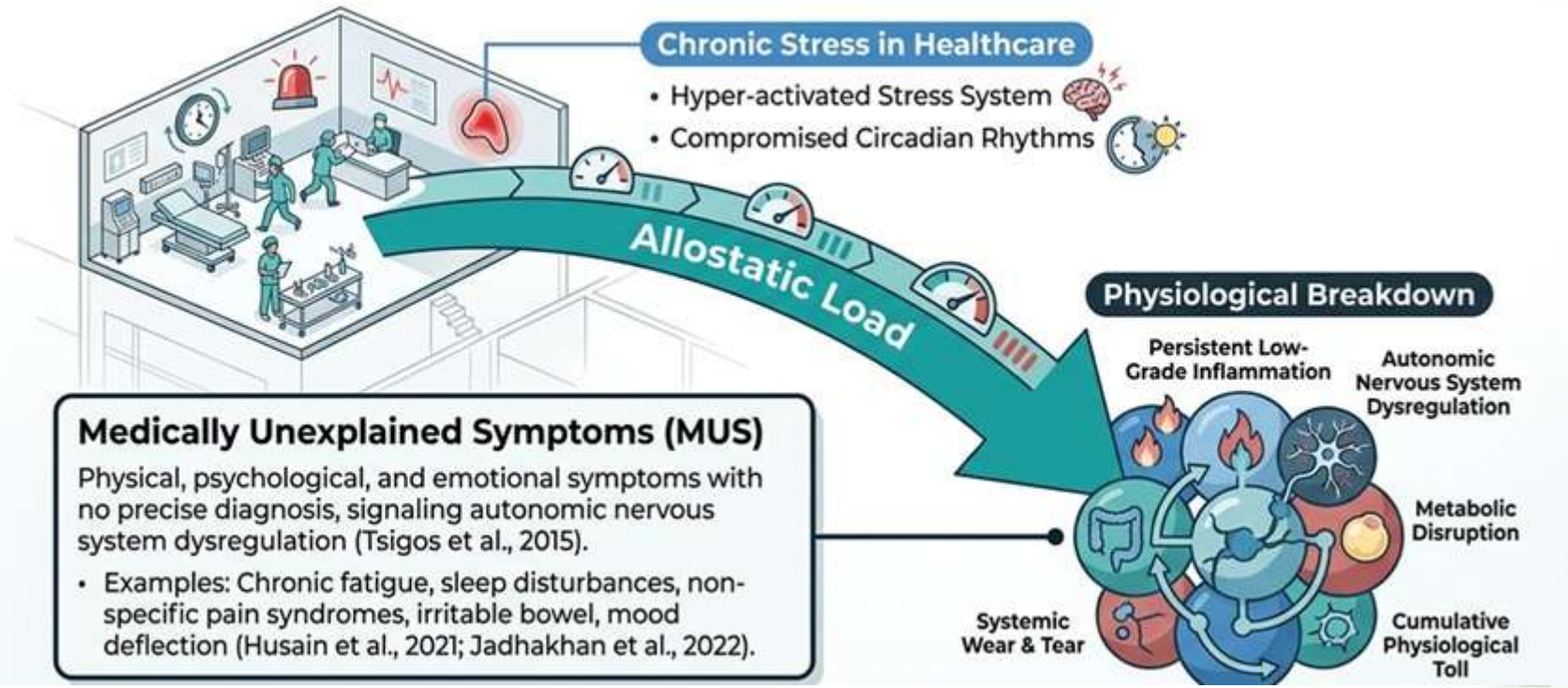
Reorienting Healthcare Systems Toward Healthcare Professionals

Creating a healthy workplace and healthy setting

Standard 4

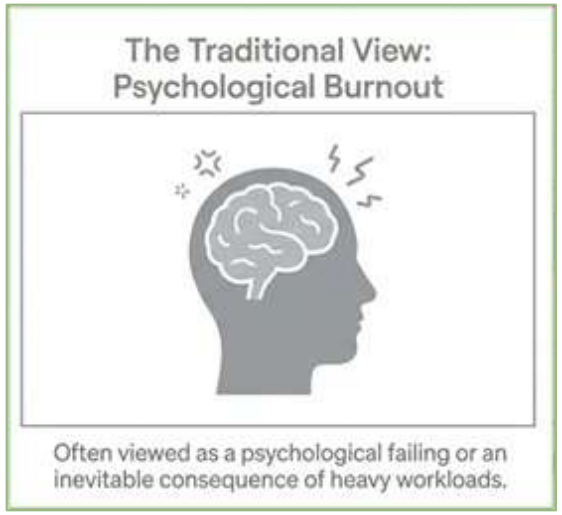
Allostatic Load in Healthcare Workers

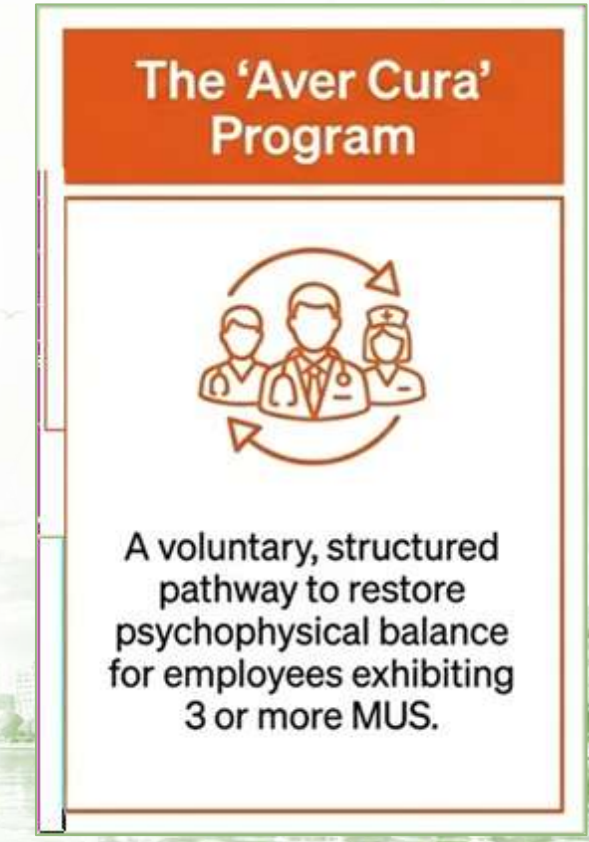
Prolonged exposure to high-stress healthcare environments hyperactivates the stress system, disrupting circadian rhythms and contributing to persistent low-grade inflammation (Chrousos, 2009)



Taking Care of Those Who Care for Us

We must shift from treating illness to actively promoting health and resilience (Groene, 2006)





The Diagnostic Link: Chronic stress may physically manifest as Medically Unexplained Symptoms (MUS)—an epiphenomenon of low-grade, stress-related chronic inflammation (Tsigos et al., 2015)

Gateways: How Healthcare Workers Access the Service

Spontaneous Self-Referral
Empowered self-candidature via direct communication.

Universal Prevention Funnel
Referral following primary prevention programs (e.g., MOPR Mindfulness Training) if MUS persists.

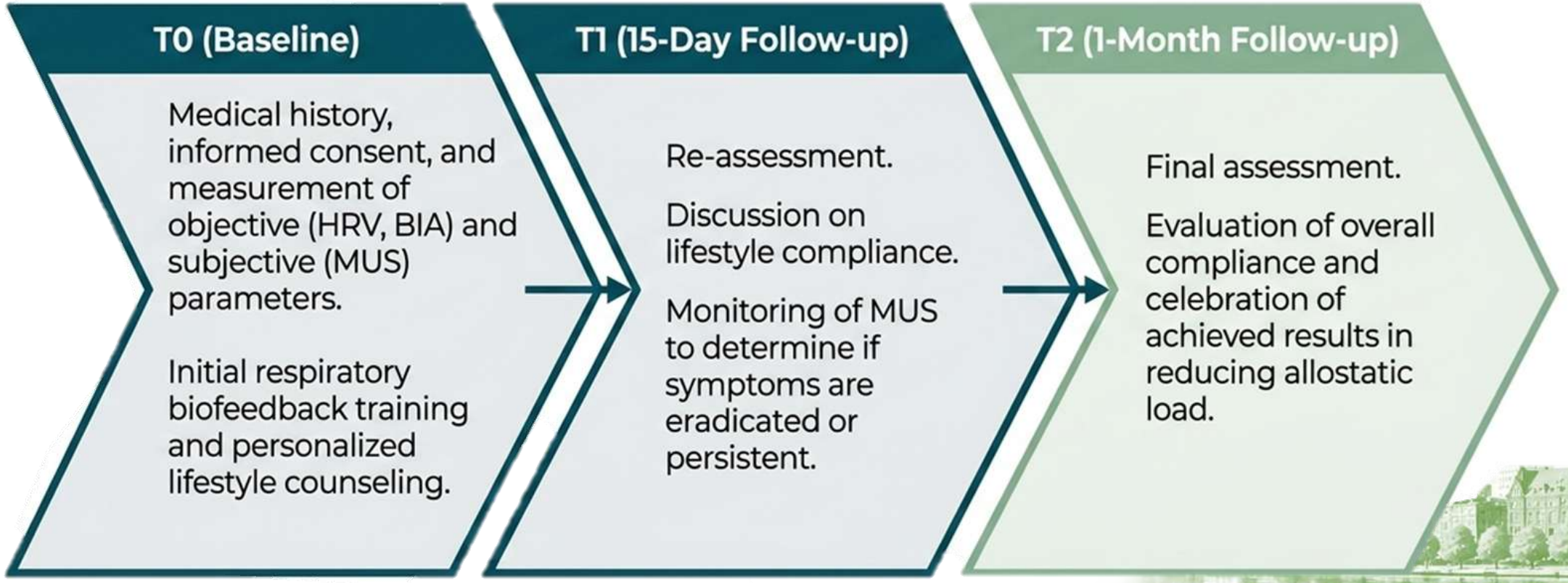
Dedicated Contact Points
Email: aver.cura@asufc.sanita.fvg.it
Dedicated phone line.

Logistical Enablers: Free of charge | Conducted during official working hours | Pre-agreed with the department.

The 'Aver Cura' Program

A voluntary, structured pathway to restore psychophysical balance for employees exhibiting 3 or more MUS.

The 3-Step Individual Pathway



Integrating Subjective Parameters with Non-Invasive Physiological Data

Subjective Experience:

What the participant

feels

The 19-item MUS Questionnaire:
Quantifies vague physical, psychological, and emotional symptoms.

Self-Rated Health (SRH):
1-10 scale perception of overall wellbeing.

Dual-Axis Measurement

Objective Physiology:

What the body reveals

PPG Stress Flow:
Measures the Autonomic Nervous Axis via Heart Rate Variability.

BIA-ACC: Measures the Endocrine/Metabolic Axis via Body Composition.

Decoding Autonomic Parameters (PPG Stress Flow)

HR Mean (bpm)

Average heart rate; the net effect of sympathetic acceleration vs. parasympathetic braking.

SDNN (ms)

Standard deviation of intervals. Indicates the overall flexibility and adaptability of the autonomic nervous system.

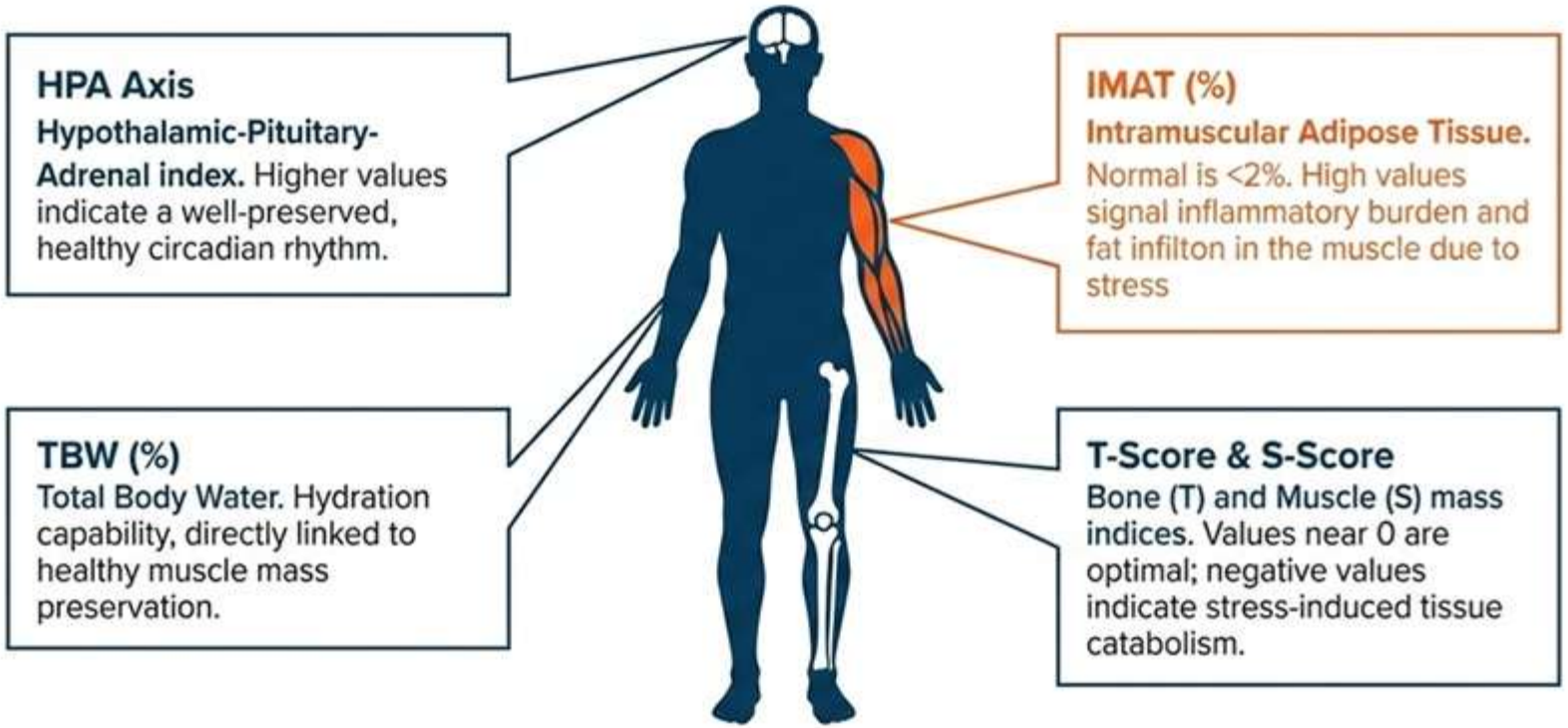
RMSSD (ms)

The critical marker of vagal tone. High values indicate strong anti-inflammatory capacity mediated by the Cholinergic Anti-inflammatory Pathway (CAP).

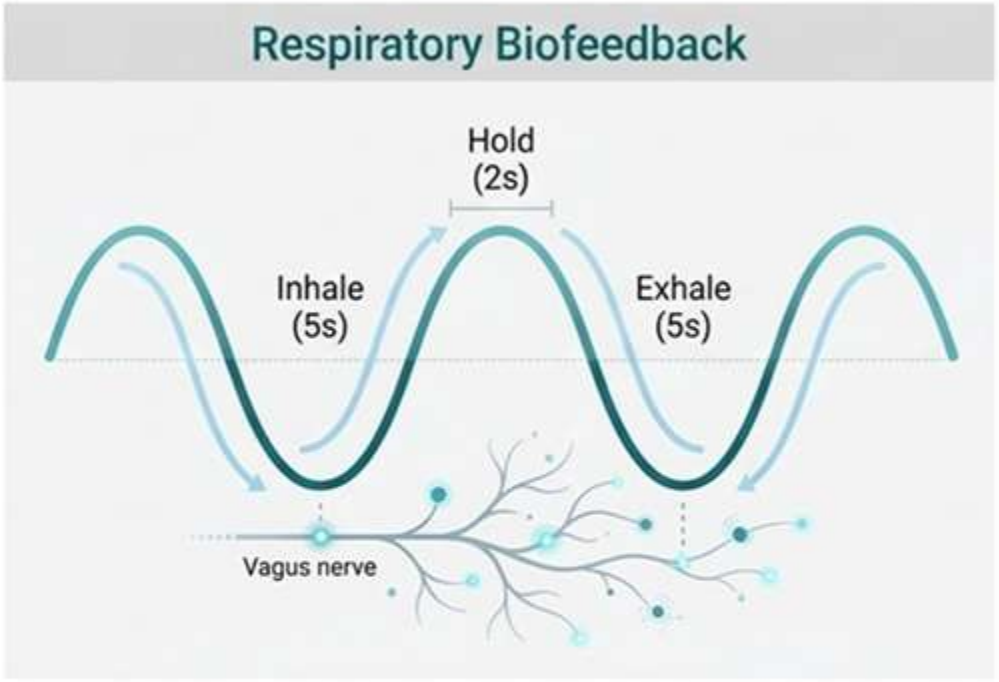
LF/VLF Ratio

The autonomic balance. A healthy, resilient system maintains a ratio > 1, avoiding prefrontal hyper-arousal.

Decoding Metabolic Parameters (BIA-ACC)



Empowering Healthcare Workers through Autonomic Regulation and Lifestyle Alignment



Lifestyle Counselling: Personalized interventions to realign daily habits with physiological neuroendocrine rhythms. Focus is heavily placed on hydration, nutrition, and sleep timing to promote optimal energy recovery

Respiratory Biofeedback: Practical sessions to train the Autonomic Nervous System (e.g., Vagal Tone 5-2-5 breathing pattern). Requires 5-minute exercises, repeated 3 times daily, specifically designed to stimulate the cholinergic anti-inflammatory reflex mediated by the vagus nerve

Pilot Study Results: Reversing the Trend

357

Healthcare professionals tracked across hospital wards.

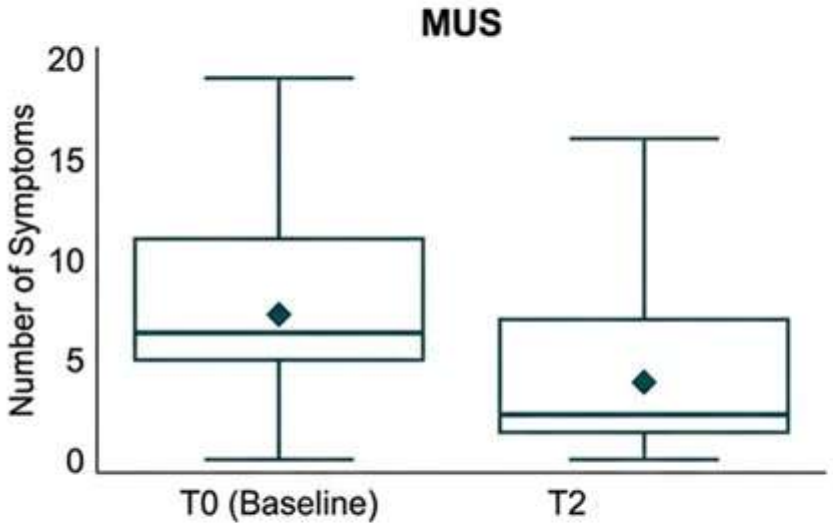
>96%

Participants presenting with at least one Medically Unexplained Symptom (MUS) at baseline.

8 Months

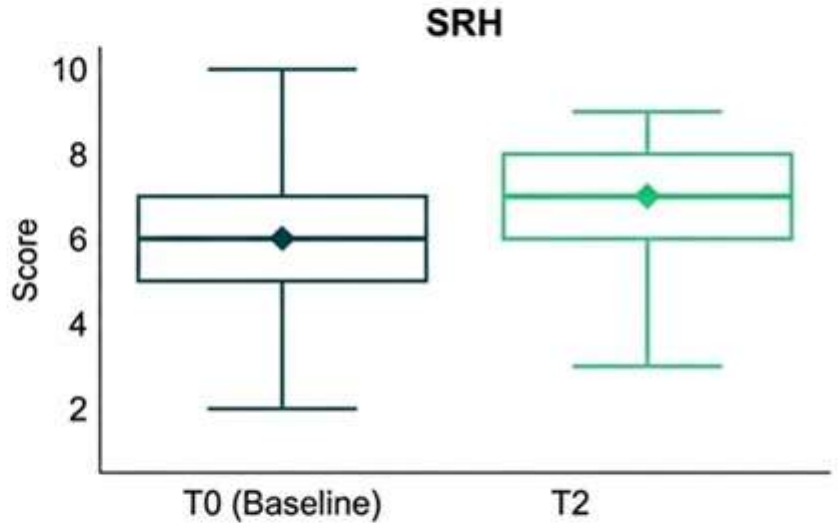
Duration of the continuous pilot tracking (May-December 2020).

Pilot Results: Subjective Wellbeing & Symptom Relief



Decreasing Trend

The median number of symptoms per capita dropped significantly from 7 to 4.



Increasing Trend

Median perceived health grew from 6 to 7, with 100% of responses shifting to the upper half (5-10) of the scale.

Pilot Results: Autonomic Nervous System Recovery

RMSSD (Vagal Tone)

Participants exceeding the healthy baseline threshold (>30ms) increased from 52% to 69%.

Clinical Meaning: Indicates enhanced intrinsic anti-inflammatory activity mediated by the vagus nerve via the Cholinergic Anti-inflammatory Pathway (Pavlov et al., 2003).

VLF (Very Low Frequencies)

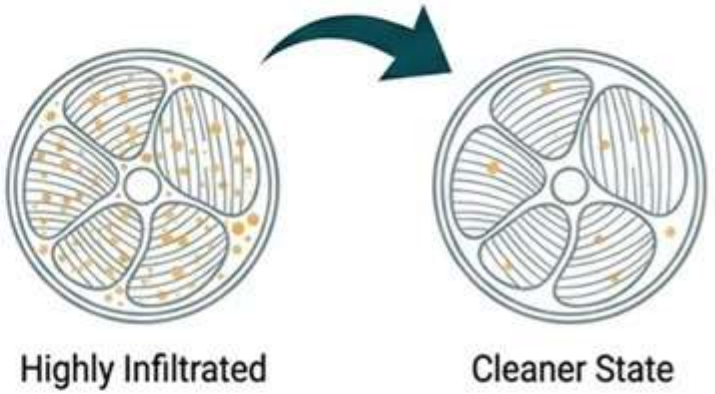
Significant downward trend from 71.2% to 61.5%.

Clinical Meaning: Demonstrates a measurable reduction in perceived stress and hyper-arousal in the prefrontal cortex.

Pilot Results: Reversing Metabolic Inflammation

Intramuscular Adipose Tissue (IMAT)

Data Highlight: Participants presenting with above-threshold IMAT values dropped from 21.2% to 19.2%.



Clinical Meaning: Normal IMAT range should remain below 2%. Elevated IMAT is a critical indicator of pro-inflammatory risk affecting major organs, driven by the energy demands of chronic stress (Ilich et al., 2020).

The program successfully initiated the reversal of stress-induced muscle degradation.

Conclusion: Fulfilling HPH&HS Standard 4

- **Scalable**: A standardized, low-barrier intervention using non-invasive technology
- **Validating**: Translates subjective staff exhaustion into objective, manageable physiological data.
- **Empowering**: Shifts the locus of control back to the healthcare worker through intrinsic autoregulation.

> *"The HPH Network in Friuli Venezia Giulia proves that promoting a safe workplace goes beyond hazard prevention—it requires actively empowering staff with the physiological tools to sustain their own wellbeing and systemic resilience."*
>
> (Polimeni, Andreatti, & Aguzzoli, 2022)

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Thank You for Your Attention

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