Physical disorders are, compared to the general population, more prevalent in people with severe mental illness (SMI). Although this excess morbidity and mortality is largely due to modifiable lifestyle risk factors, the screening and assessment of physical health aspects remains poor, even in developed countries. Moreover, specific patient, provider, treatment and system factors act as barriers to the recognition and to the management of physical diseases in people with SMI. Psychiatrists can play a pivotal role in the improvement of the physical health of these patients by expanding their task from clinical psychiatric care to the monitoring and treatment of crucial physical parameters. At a system level, actions are not easy to realize, especially for developing countries. However, at an individual level, even simple and very basic monitoring and treatment actions, undertaken by the treating clinician, can already improve the problem of suboptimal medical care in this population. Adhering to monitoring and treatment guidelines will result in a substantial enhancement of physical health outcomes. Furthermore, psychiatrists can help educate and motivate people with SMI to address their suboptimal lifestyle, including smoking, unhealthy diet and lack of exercise. The adoption of the recommendations presented in this paper across health care systems throughout the world will contribute to a significant improvement in the medical and related psychiatric health outcomes of patients with SMI.