ABSTRACT. We consider n-hypersurfaces Σ_j with interior E_j whose mean curvature are given by the trace of an ambient Sobolev function $u_j \in W^{1,p}(\mathbb{R}^{n+1})$

$$\vec{\mathbf{H}}_{\Sigma_j} = u_j \nu_{E_j} \quad \text{on } \Sigma_j, \tag{0.1}$$

where ν_{E_j} denotes the inner normal of Σ_j. We investigate (0.1) when $\Sigma_j \to \Sigma$ weakly as varifolds and prove that Σ is an integral n-varifold with bounded first variation which still satisfies (0,1) for $u_j \to u, E_j \to E$. p has to satisfy

$$p > \frac{1}{2}(n+1)$$

and $p \geq \frac{4}{3}$ if $n = 1$. The difficulty is that in the limit several layers can meet at Σ which creates cancellations of the mean curvature.