jChildren with cerebral palsy (CP) commonly have speech-motor disorder (dysarthria). Intelligibility measures the degree to which a listener can recover a speaker’s intended message, so it provides a measure of how functional a child’s speech is for communication. We examined growth in intelligibility in multiword utterances for 65 children with CP from age 2 to age 8. We also compared how developmental trajectories differed across three speech-language profile groups: no speech-motor impairment, speech-motor impairment with typical language comprehension, and speech-motor impairment with impaired language comprehension. Children with CP showed highly variable growth patterns, but speech-language profiles captured some developmental similarities. Children without dysarthria reached a higher estimated intelligibility and showed their window of fastest growth a year earlier than their peers with dysarthria. Children with dysarthria and language impairment had noisier measurements and probably had lower intelligibility attainments than their peers with typical comprehension. Implications for assessment and treatment planning are discussed. Research supported by NIDCD R01 DC009411 and NICHD U54 HD090256.