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Isabella Novik and **Edward Swartz*** (ebs@math.cornell.edu), Malott Hall, Dept. of Mathematics, Cornell University, Ithaca, NY 14853. *f-vectors of manifolds with boundary*.

We report on a few recent results on the face numbers of simplicial manifolds with boundary, among them a version of Dehn-Sommerville relations and a new rigidity inequality that strengthens Kalai's 1987 result. This ultimately relates to the study of face numbers of spaces with singularities, and if time permits, we will sketch some of the recent advances on that front. (Received January 18, 2009)