## DISTRIBUTIONS FOR SUMS OF EXCHANGEABLE BERNOULLI RANDOM VARIABLES

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We describe new families of discrete distributions that can be used to model sums of exchangeable Bernoulli random variables. These discrete distributions can be parameterized in terms of their mean, variance, and shape parameters. These models are fitted to an example involving mortality rates for children in a survey of families in Brazil. The methods illustrate that mortality rates in this survey increase with family size and within-family mortality status is more highly correlated among the children in smaller families.