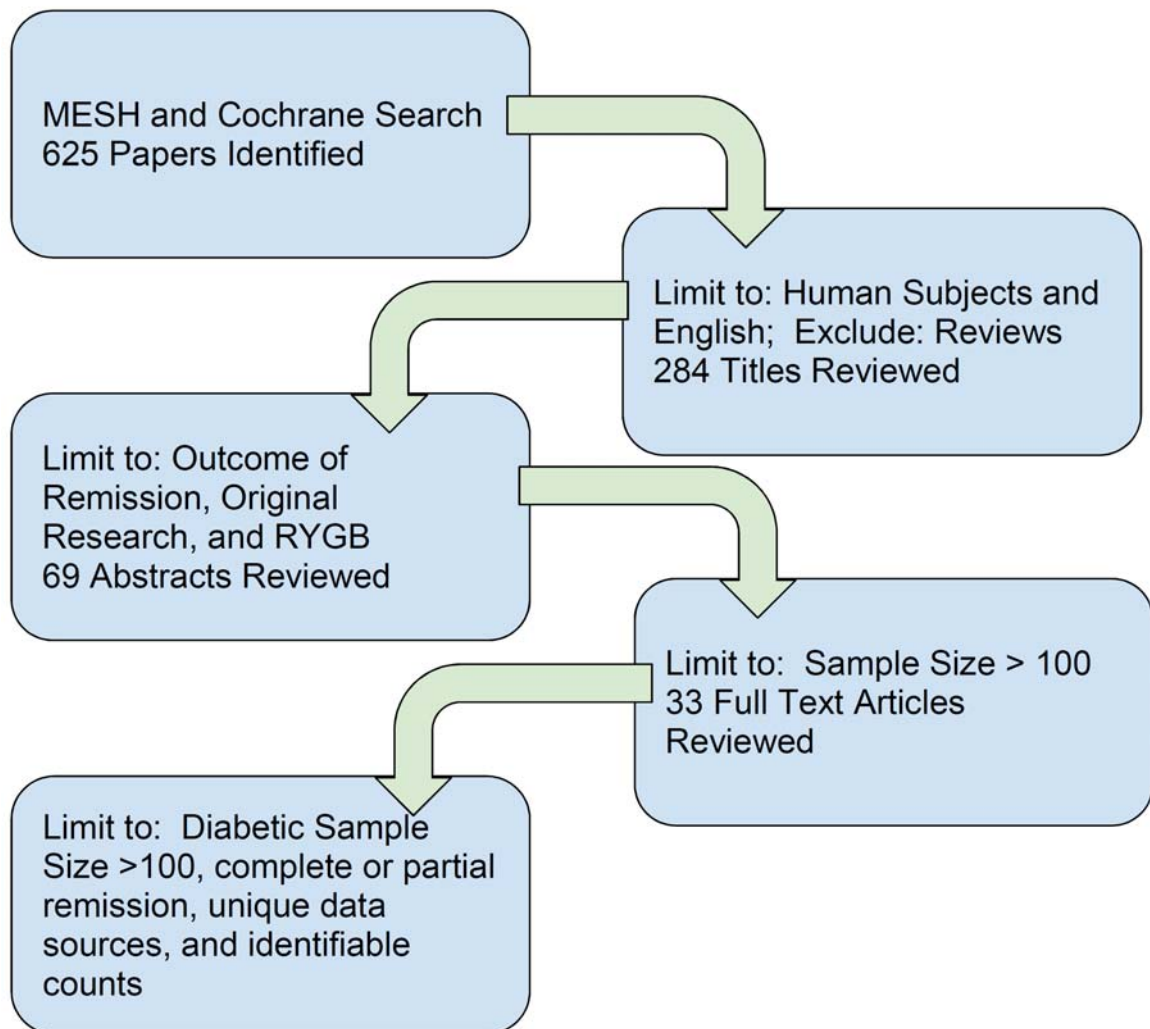


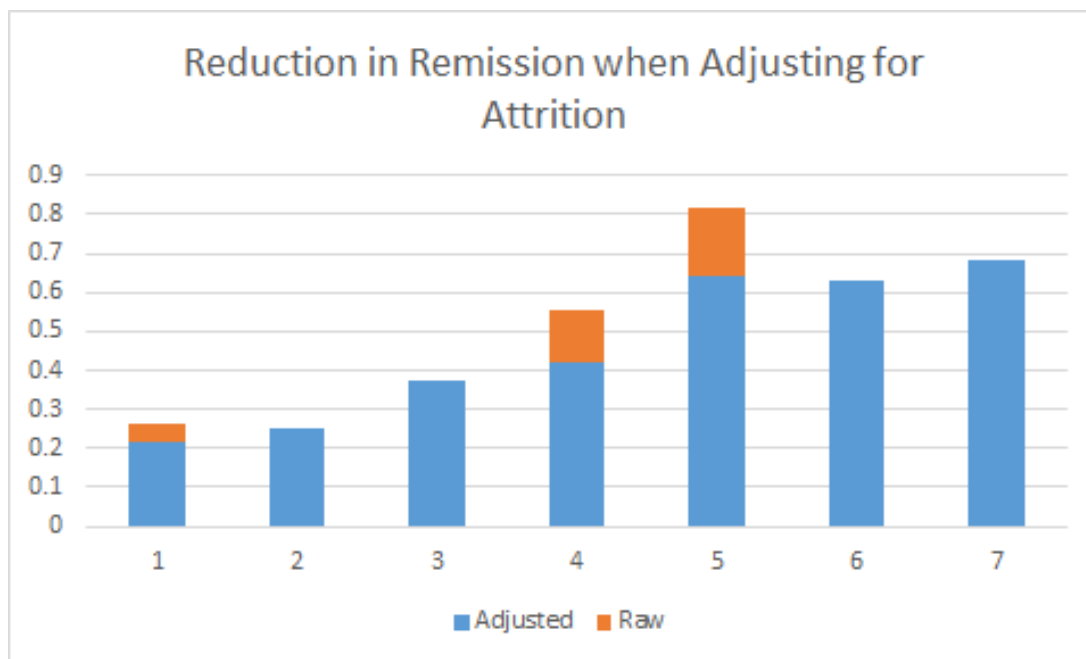
Supplementary Figure S1. Data Source Diagram

MeSH search terms of ((diabetes remission bariatric surgery) OR diabetes remission RYGB) OR diabetes remission Roux-en-Y; supplemented by Cochrane review with search term 'bariatric', and papers cited in a review or meta-analyses, yielded 625 papers. Further restriction to human subjects, English language, and excluding reviews and other summarizations yielded 284 papers. Excluding 215 papers based on titles (151 studying outcomes other than remission, 25 position papers, protocols, letters, or meta-analyses, 30 studying surgical treatments other than RYGB, and 5 of adolescents or sample sizes less than 100), abstracts were examined for 69 (28 eight of which were excluded for having sample sizes under 100). Full text articles were reviewed for 33 papers, of which 6 had diabetic sample sizes under 100, 9 did not measure our outcome of interest, 5 did not report usable counts, and 3 were duplicate studies.



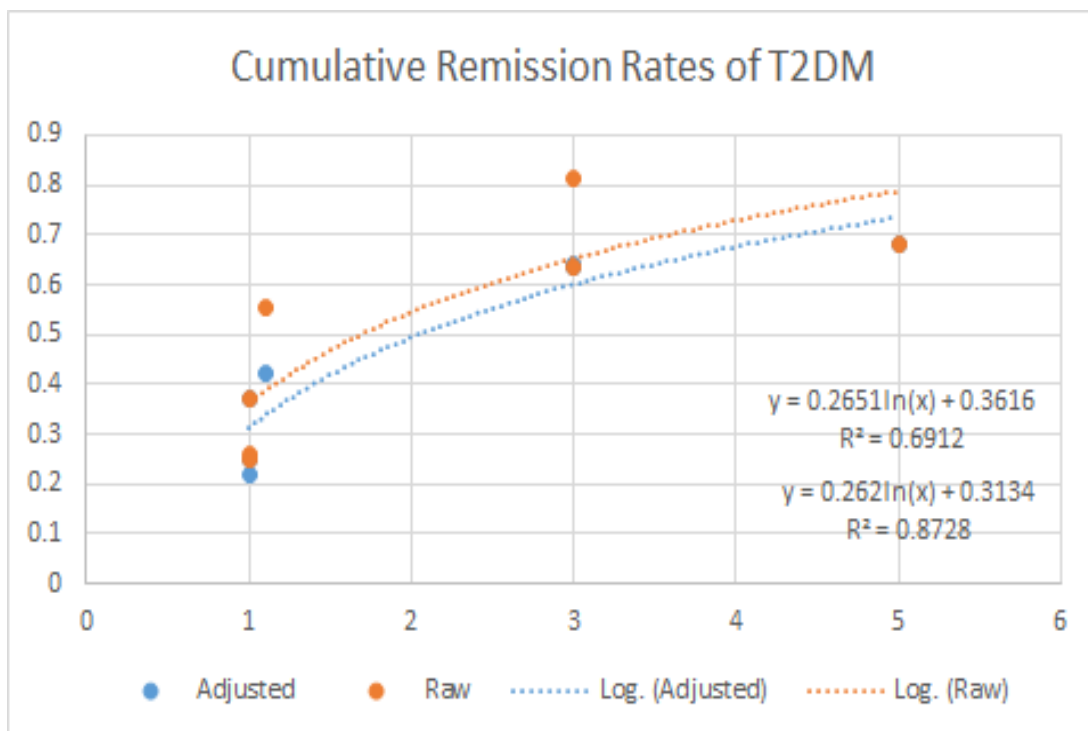
SUPPLEMENTARY DATA

Supplementary Figure S2. Reduction in Cumulative Complete Remission Rates when adjusting for Attrition, but not Considering Duration of Study.



SUPPLEMENTARY DATA

Supplementary Figure S3. Plot of Unadjusted Cumulative Remission rates versus Adjusted Cumulative Rates and R-square values for Corresponding Log-scale Models.



SUPPLEMENTARY DATA

Supplementary Table S1. Summary of Published Remission Rates for Partial Remission* of Diabetes following Roux-en-Y Gastric Bypass

	Follow up (yrs)	N Initial	N (%) retained	N remiss	reported rate (method) †	Data Source	ExC Adjusted rate ‡
Reporting Cumulative Remission							
Arterburn, 2013 Obes surg	1	4434		1795	47% (KM)	EMR§	47% (45.6,48.8)
Still, 2014 Lancet	2	690			58% (KM)	EMR	58% (55,62)
Arterburn, 2013 Obes surg	3	4434		2543	73% (KM)	EMR	73% (70.9,74.1)
Still, 2014 Lancet	3	690			65% (KM)	EMR	65% (61,69)
Still, 2014 Lancet	4	690			66% (KM)	EMR	66% (62,70)
Still, 2014 Lancet	5	690			68% (KM)	EMR	68% (64,73)
Arterburn, 2013 Obes surg	5	4434		2617	77% (KM)	EMR	77% (75.3, 78.6)
Obeid, 2015 Surg Obes Rel	10	328	134		58% (KM)	EMR + clinic	58% NR
Point Prevalent							
Guiliford, 2016 Ob Surg	0-1	449	449 (100%)	112	25% (KM)	EMR	25% NR
Brethauer, 2013 Ann Surg	1-2	221	162 (73%)	115	71% (AC)	clinic	52% (45.4, 58.6)
Guiliford, 2016 Ob Surg	1-2	449	361 (80%)	122	33.8% (KM)	EMR	34% NR

SUPPLEMENTARY DATA

Guiliford, 2016 Ob Surg	2-3	449	249 (55%)	70	28% (KM)	EMR	28% NR
Courcoulas, 2015 Surg Ob	3	583	320	216	68% (AC)	multi-site clinics	37% (33.1, 40.9)
Brethauer, 2013 Ann Surg	3-5	221 [^]	162 (73%)	99	61% (AC)	clinic f/u	45% (38.4, 51.6)

* Partial remission of diabetes as defined by HbA1c \leq 6.5 and off all diabetic medications

† AC: available-case KM: Kaplan-Meier analyses

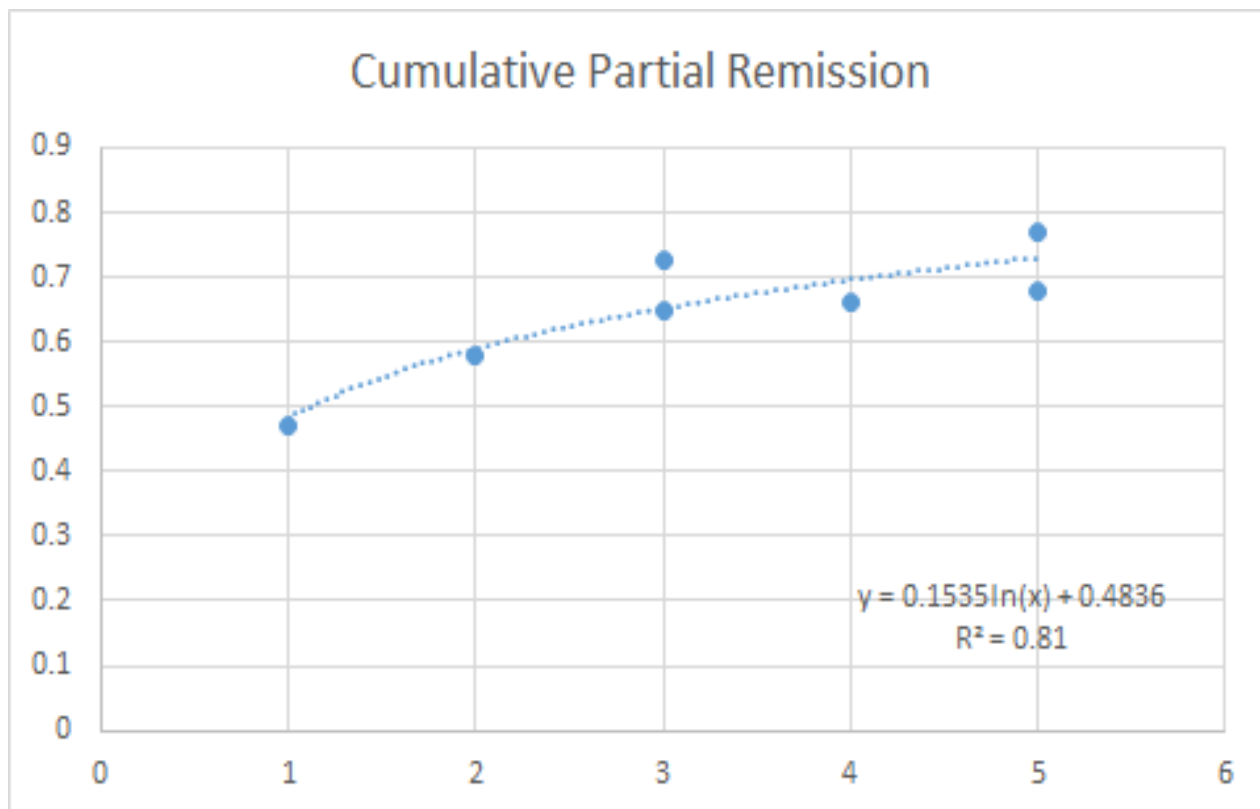
‡ Extreme-case Imputed remission rates for available-case analyses, other methods not adjusted

§EMR: Electronic medical record system.

|| Estimated sample size. See Supplement Table S2 for detail.

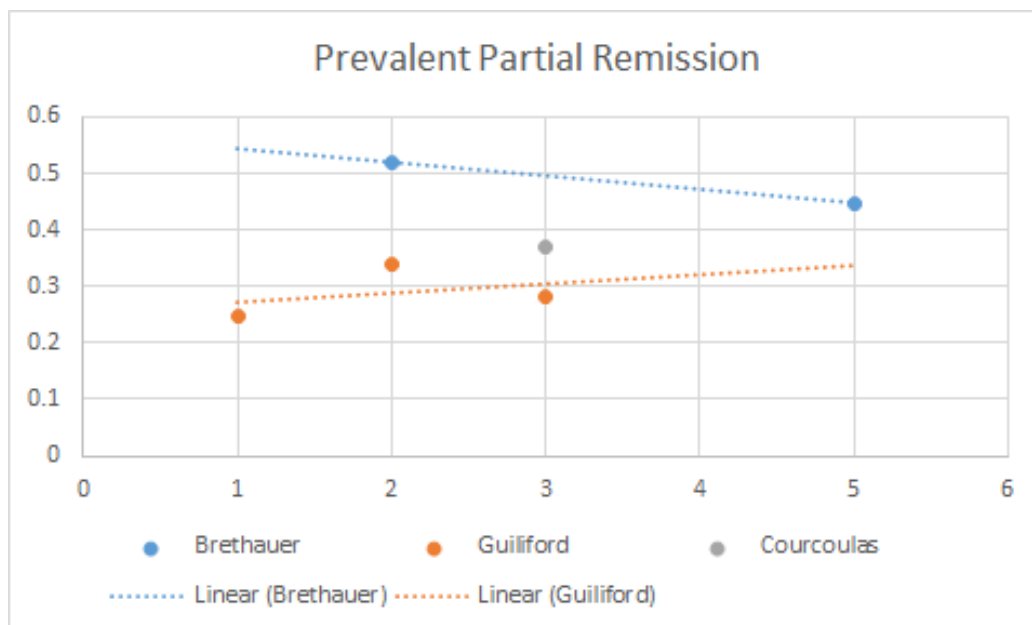
SUPPLEMENTARY DATA

Supplementary Figure S4. Cumulative Partial Remission Rates following RYGB as a function of time, using estimates that account for dropouts either by Kaplan-Meier analysis or worst-case imputation.



SUPPLEMENTARY DATA

Supplementary Figure S5. Plot of Prevalent Partial Remission for Four clinical Studies, and Linear Models for Each Study Providing Estimates at More than One Time Point.



SUPPLEMENTARY DATA

Supplementary Table S2. Estimations Made for Count Calculations

Yska et al, (2015)	Did not report dropout specific to the RYGB arm, but did report dropout for the total sample	We report the overall 54% 1-year retention rate found in Table 2 of their published supplemental materials
Brethauer et al (2013)	Did not report dropout specific to the RYGB arm, but did report dropout for the total sample	We applied the 27% total dropout rate to the RYGB subsample to estimate the initial sample size
Schauer et al, (2003)	Reported their initial sample size combining patients with both diabetes and impaired fasting glucose (IFG)	We applied the 7% proportion of IFG seen in the complete-case sample. A more conservative estimate, removing only the 14 known people with IFG, yields an initial sample size of 225 and an attrition-adjusted estimate of 64%.
Arterburn et al, (2013) and Yska et al, (2015)	Did not report number of events for complete remission	We applied the Kaplan-meier rate to the initial sample size.