**Supplemental Table 1: Quality assessment of studies included(n=44)**

| Study | Selection | Comparability | Outcome | Total |
|---|---|---|---|---|
| Desai | *** | | *** | 6 |
| Shivakumar | *** | | ** | 5 |
| Venkatraman | *** | | *** | 6 |
| Kocchar | *** | | *** | 6 |
| Kim | *** | | *** | 6 |
| Lee | *** | | *** | 6 |
| Hilmi | *** | | ** | 5 |
| Al Shamali | *** | | *** | 6 |
| Kekilli | ** | | *** | 5 |
| Kamiya | *** | | ** | 5 |
| Fujita | *** | | *** | 6 |
| Hata | *** | | *** | 6 |
| Ishibashi | *** | | *** | 5 |
| Hiwatashi | *** | | ** | 5 |
| Zhang | *** | | *** | 6 |
| Gong | *** | | *** | 6 |
| Zhao | *** | | *** | 6 |
| Chow | *** | | *** | 6 |
| Gilat | *** | | *** | 6 |
| Kuo | *** | | ** | 5 |
| Wei | *** | | *** | 6 |
| Senanayake | *** | | *** | 6 |
| Ghazzawi | *** | | *** | 6 |
| Aqhazadeh | *** | | *** | 6 |
| Kusakcioglu | *** | | ** | 5 |
| Suzuki | *** | | ** | 5 |

| Study | Selection | Comparability | Outcome | Total |
|---|---|---|---|---|
| Bopanna | *** | | *** | 6 |
| Hilmi | *** | | ** | 5 |
| Birkenfield | *** | | *** | 6 |
| Ling | *** | | *** | 6 |
| Zhang | *** | | *** | 6 |
| Zhu | *** | | ** | 5 |
| Wang | *** | | *** | 6 |
| Tan | *** | | *** | 6 |
| Gilat | *** | | *** | 6 |
| Ray G | *** | | *** | 6 |
| Radhakrishnan | *** | | *** | 6 |
| Thia | *** | | *** | 6 |
| Tung | *** | | *** | 6 |
| Lim | *** | | ** | 5 |
| Choi | *** | | *** | 6 |
| Nagasako | *** | | ** | 5 |
| Jiang | *** | | ** | 5 |
| Park | *** | | *** | 6 |

**Supplementary Table 2: Meta-regression analysis**

| Variable | Studies | Coefficient (95%CI) | P value |
|---|---|---|---|
| **Number of patients** | 43 | -0.00 ( -0.00 - 0.00) | 0.21 |
| **Start Year** | 36 | 0.02 ( -0.02 - 0.07) | 0.27 |
| **Region within Asia**<br><br>-Middle East (vs. rest of Asia) | 43 | 0.03 (-0.39 - 0.46) | 0.86 |
| **Study type**<br><br>Registry based vs<br><br>Hospital based | 43 | -0.11 (-1.61 – 1.37) | 0.87 |
| **Duration of UC** | 22 | 0.17 (-0.15 - 0.51) | 0.2 |
| **Proportion of pancolitis** | 15 | -.000 (-0.02 - 0.01) | 0.67 |
| **Decade of study**<br><br><1980<br><br>1980 – 89<br><br>1990 -99<br><br>2000 and later | 42 | <br><br>1.37(-0.99 – 3.74)<br><br>0.37(-1.86 -2.61)<br><br>-0.28(-4.34 -3.76)<br><br>0.66 (-1.69 -3.03) | <br><br>0.24<br><br>0.73<br><br>0.88<br><br>0.57 |

**\*Number of patients, start year, duration of UC and proportion of pancolitis patients**

**were modeled as continuous variables.**

**Supplemental Figure 1: Prevalence estimates by region**
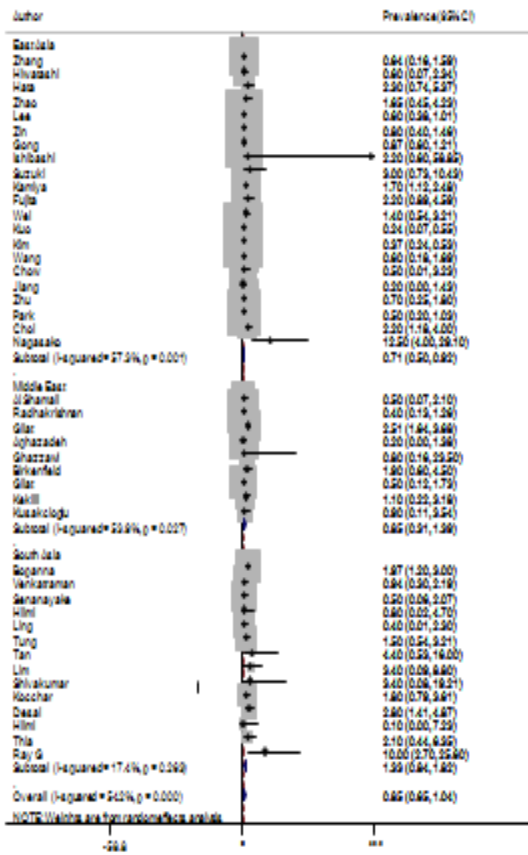
**Supplemental Figure 2: Funnel plot**
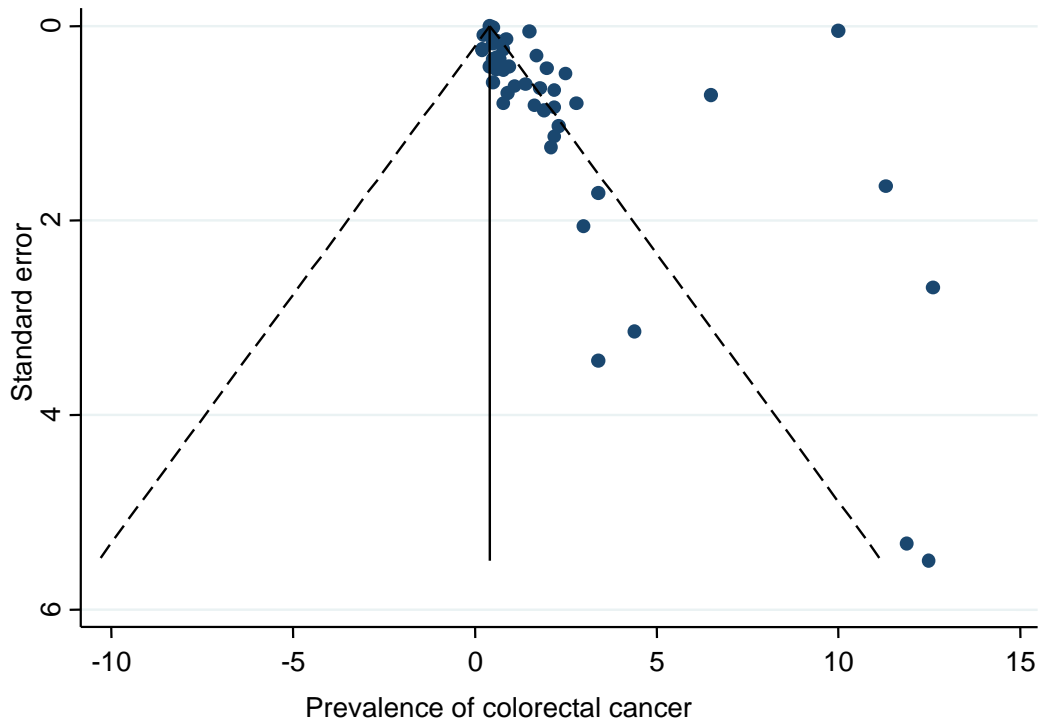
**Appendix 1**

**NEWCASTLE - OTTAWA QUALITY ASSESSMENT SCALE COHORT STUDIES**
Review: ulcerative colitis and colorectal cancer

Note: A study can be awarded a maximum of one star for each numbered item within the Selection and Outcome categories. A maximum of two stars can be given for Comparability

**Selection**

1) Representativeness of the exposed cohort
a) truly representative of the average patients with ulcerative colitis (describe) in the community ✸ b) somewhat representative of the average patients with ulcerative colitis in the community ✸
c) selected group of users eg nurses, volunteers
d) no description of the derivation of the cohort

2) Selection of the non exposed cohort
a) drawn from the same community as the exposed cohort ✸ b) drawn from a different source
c) no description of the derivation of the non exposed cohort

3) Ascertainment of exposure
a) secure record (e.g. surgical records) ✸ b) structured interview ✸
c) written self report
d) no description

4) Demonstration that outcome of interest was not present at start of study

 a) yes ✸ b) no

**Comparability**

1) Comparability of cohorts on the basis of the design or analysis
a) study controls for _____ (select the most important factor) ✸
b) study controls for any additional factor ✸ (This criteria could be modified to indicate specific control for a second important factor.)

**Outcome**

1) Assessment of outcome
a) independent blind assessment ✸ b) record linkage ✸
c) self report
d) no description

2) Was follow-up long enough for outcomes to occur
a) yes (select an adequate follow up period for outcome of interest) (MEDIAN FOLLOW-UP>5 YEARS)❋ b) no

3) Adequacy of follow-up of cohorts
a) complete follow up - all subjects accounted for ❋
b) subjects lost to follow-up unlikely to introduce bias - small number lost -> 80 % follow-up, or description provided of those lost) ❋
c) follow up rate < 80 % (select an adequate %) and no description of those lost d) no statement

**Appendix II**

**Search Terms**

'colorectal cancer' OR 'colon cancer' OR 'rectal cancer' AND 'ulcerative colitis' AND * country*

The search was repeated serially for every country in Asia

Example:
1. colorectal cancer' OR 'colon cancer' OR 'rectal cancer' AND 'ulcerative colitis' AND 'India'
2. colorectal cancer' OR 'colon cancer' OR 'rectal cancer' AND 'ulcerative colitis' AND 'China'

**List of countries in Asia for which the search was conducted (50 countries)**

Afghanistan,Armenia,Azerbhaijan,Bahrain,Bangladesh,Bhutan,Brunei,Cambodia,China,Cyprus,Georgia,India.Indonesia,Iran,Iraq,Israel,Kazakhistan.Kuwait,Kyrgyztan,Laos,Lebanon,Malaysia,Maldives,Mongolia,Myanmar,Nepal,NorthKorea,Oman,Pakistan,Palestine,Phillipines,Qatar,Russia, SaudiArabia,Singapore,SouthKorea,SriLanka,Syria,Taiwan,Tajikistan,Thailand,TimorLeste,Turkey Turkeminis-tan,United Arab Emirates,Uzbhekistan,Vietnam,Yemen.

## Appendix III

## Metan commands

metanprevcrc_ prev_crc_llprev_crc_ul, random label(namevar=author)
metanprevcrc_ prev_crc_llprev_crc_ul, random label(namevar=author) by(region)
metanprevcrc_ prev_crc_llprev_crc_ul, random label(namevar=author) by(study_type)
metanprevcrc_ prev_crc_llprev_crc_ul, random label(namevar=author) by(decade)