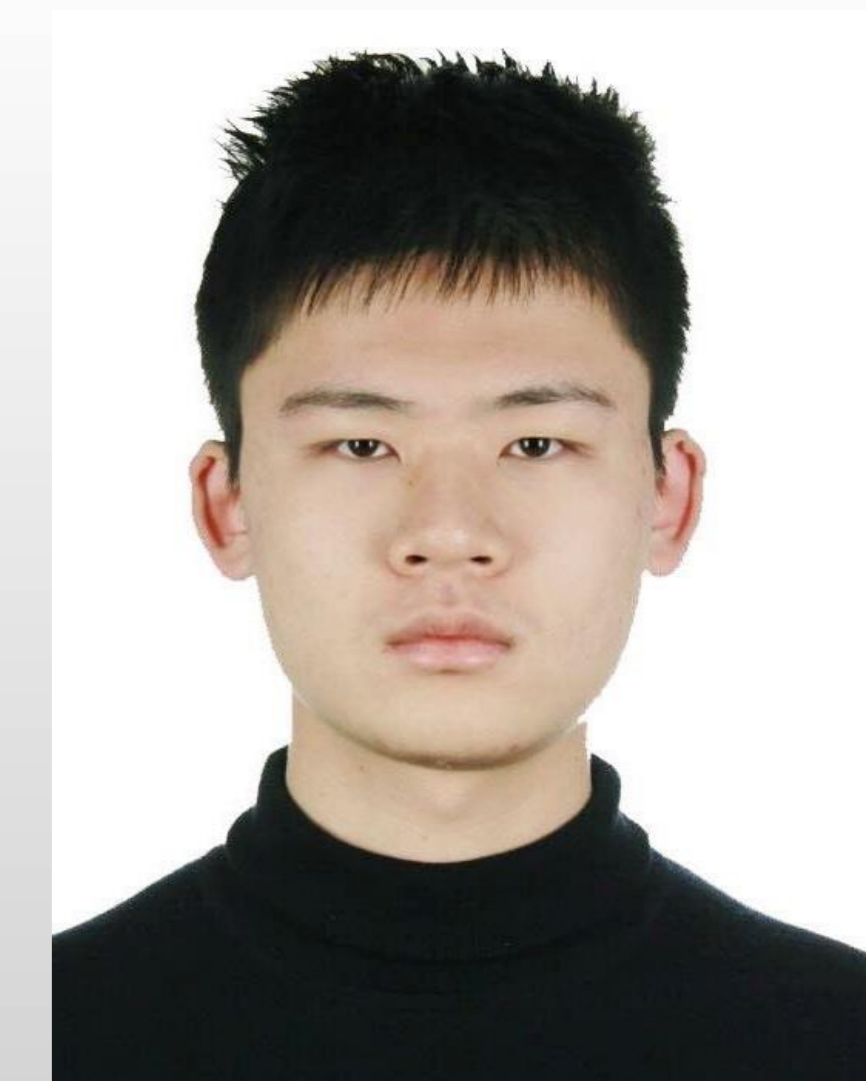


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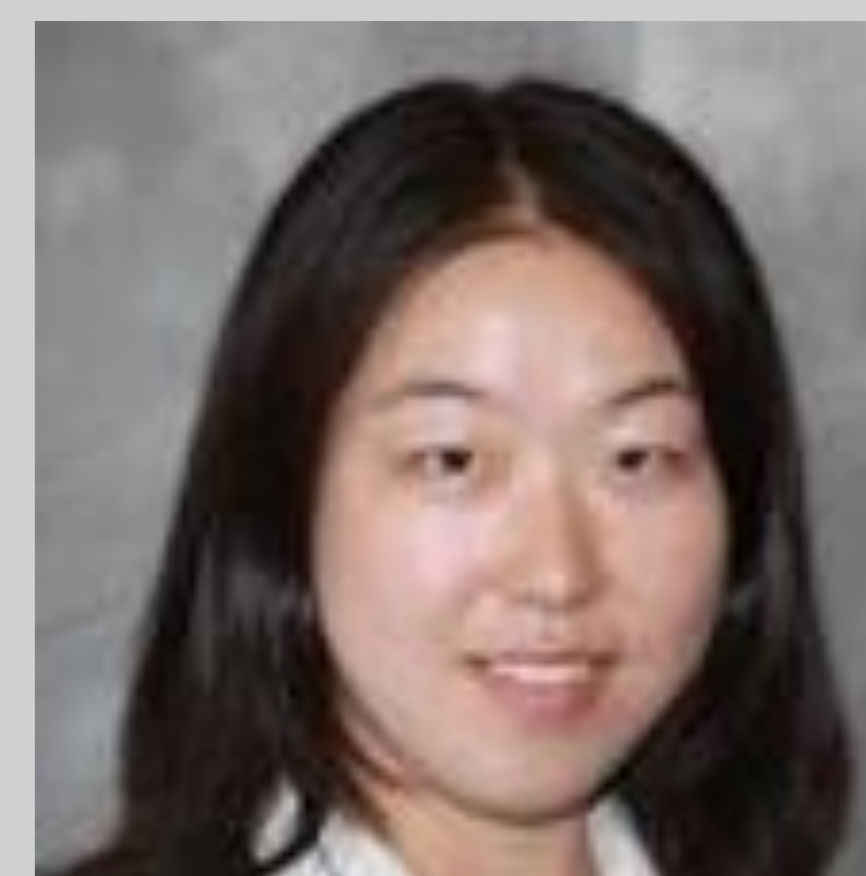
USERS PROGRAM

APRIL 28 - MAY 1, 2019 | DALLAS, TX





Yizhe Ge



Tracy Song-Brink

**Overview****Code Sample**

## Introduction

At least three human vaccine quality scandals broke out in China in the past 5 years. The recent one that was reported in July 2018 triggered an outcry from Chinese parents on the internet. They were eager to find out whether the vaccines that their children got were at risk. However, there was no complete vaccine tracing database that was available to public for easy search. We gathered official vaccine sourcing information and consolidated the data. We used Base SAS for web scraping, data cleansing, and data consolidation. Our database is used to provide an easy way to check the risk of human vaccines that were in the market in the past years.

## Data Source

Our data source is public government procurement information. In China, all government procurement information should be made public on the provincial level. We gathered information for each province separately. Most provinces have more than one release about vaccine procurement available on the internet. The provincial data was then consolidated into a national-level multi-year database.



## Application

The final database is used for website wodeyimiao.net. On this website, users can check their vaccine source and respective quality risk level by province name, vaccine name, or/and vaccination year.

Our data collection will be an on-going process and we will keep gathering future vaccine procurement data to include into this database.

Overview  
Code Sample



序号	疫苗种类	疫苗名称	剂型	规格	包装单位	转换系数	包装材料	批准文号	企业名称	成交价格 (元)
1	13价肺炎球菌多糖结合疫苗	13价肺炎球菌多糖结合疫苗	注射剂	0.5ml/支	盒	1	预填充注射器	S20160042	科园信海(北京)医疗用品贸易有限公司	698
2	23价肺炎球菌多糖疫苗	23价肺炎球菌多糖疫苗	注射剂	0.5ml/瓶	盒	1	西林瓶	国药证字S20060029	成都生物制品研究所有限责任公司	182
3	23价肺炎球菌多糖疫苗	23价肺炎球菌多糖疫苗	注射剂	0.5ml/支	盒	1	预填充注射器	国药准字S20170003	玉溪沃森生物技术有限公司	200
4	23价肺炎球菌多糖疫苗	23价肺炎球菌多糖疫苗	注射剂	0.5ml/瓶	盒	1	西林瓶	S20140114	重庆智飞生物制品股份有限公司	201
5	ACYW135群脑膜炎球菌多糖疫苗	ACYW135群脑膜炎球菌多糖疫苗	冻干粉针剂	0.5ml/瓶	盒	1	玻璃西林瓶	国药准字S20070025	北京智飞绿竹生物制药有限公司	61

Example:

Data source URL: <http://news.pharmnet.com.cn/news/2017/10/25/481915.html>

SAS code to get information from HTML:

```
filename sourcing url
"http://news.pharmnet.com.cn/news/2017/10/25/481915.html";
data hubei2017;
    infile sourcing length=len lrecl=32767;
    input line $varying32767. len;
    output;
run;
```

line
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

line
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196

num	vac_type	vac_name	fom	composition	packing_unit	conversion_factor	packing_material	approval_number	company_name	price
1	13价肺炎球菌多糖结合疫苗	13价肺炎球菌多糖结合疫苗	注射剂	0.5ml/支	盒	1	预填充注射器	S20160042	科园信海(北京)医疗用品贸易	698
2	23价肺炎球菌多糖疫苗	23价肺炎球菌多糖疫苗	注射剂	0.5ml/瓶	盒	1	西林瓶	国药证字S20060029	成都生物制品研究所有限责任公司	182
3	23价肺炎球菌多糖疫苗	23价肺炎球菌多糖疫苗	注射剂	0.5ml/支	盒	1	预填充注射器	国药准字S20170003	玉溪沃森生物技术有限公司	200
4	23价肺炎球菌多糖疫苗	23价肺炎球菌多糖疫苗	注射剂	0.5ml/瓶	盒	1	西林瓶	S20140114	重庆智飞生物制品股份有限公司	201
5	ACYW135群脑膜炎球菌多糖疫苗	ACYW135群脑膜炎球菌多糖疫苗	冻干粉针剂	0.5ml/瓶	盒	1	玻璃西林瓶	国药准字S20070025	北京智飞绿竹生物制药有限公司	61
6	ACYW135群脑膜炎球菌多糖疫苗	ACYW135群脑膜炎球菌多糖疫苗	冻干粉针剂	0.5ml/瓶	盒	1	西林瓶	国药准字S20100009	成都康华生物制品有限公司	49
7	ACYW135群脑膜炎球菌多糖疫苗	ACYW135群脑膜炎球菌多糖疫苗	冻干粉针剂	200ug/0.5ml	盒	1	玻璃西林瓶	国药准字S20090011	华兰生物疫苗有限公司	58
8	ACYW135群脑膜炎球菌多糖疫苗	ACYW135群脑膜炎球菌多糖疫苗	冻干粉针剂	0.5ml/瓶	盒	1	玻璃西林瓶	国药准字S20120003	玉溪沃森生物技术有限公司	64.5
9	ACYW135群脑膜炎球菌多糖疫苗	ACYW135群脑膜炎球菌多糖疫苗	冻干粉针剂	0.5ml/瓶	盒	1	玻璃西林瓶	国药准字S20130010	长春长生生物科技有限责任公司	55
10	A群C群脑膜炎球菌、b型流感嗜血杆菌联合疫苗	AC群脑膜炎球菌(结合)b型流感嗜血杆菌联合疫苗	注射剂	0.5ml/瓶	盒	1	玻璃西林瓶	国药准字S20140003	北京智飞绿竹生物制药有限公司	214
11	A群C群脑膜炎球菌多糖结合疫苗	A群C群脑膜炎球菌多糖结合疫苗	注射剂	0.5ml/瓶	盒	1	玻璃西林瓶	国药准字S20070018		73

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