Analisis spasial konsentrasi PM2 5 dalam rumah dengan penurunan fungsi paru pada ibu rumah tangga studi kasus di pemukiman sekitar industri baja desa sukadanau kecamatan cikarang barat kabupaten bekasi tahun 2015 = Spatial analysis indoor air pollution PM2 5 concentration with lung function among housewife case study in resident around steel industry in sukadanau district of west cikarang bekasi district 2015

Yulia Fitria Ningrum, author

Abstrak

[ABSTRAK
PM2,5 dapat masuk ke alveoli dan menjadi pemicu terjadinya inflamasi sehingga menyebabkan penurunan fungsi paru. Tujuan dari penelitian ini adalah untuk menganalisis secara spasial hubungan antara konsentrasi PM2,5 udara dalam rumah dengan penurunan fungsi paru pada ibu rumah tangga sekitar industri Desa Sukadanau, Kecamatan Cikarang Barat, Kabupaten Bekasi tahun 2015. Desain penelitian cross sectional modifikasi geographical epidemiology pada 125 ibu rumah tangga berusia 20-45 tahun yang akan diperiksa fungsi parunya
menggunakan spirometri serta 125 sampel PM2,5 udara dalam rumah. Hasil penelitian menunjukkan bahwa terdapat 58,4% ibu rumah tangga yang mengalami penurunan fungsi paru. Hasil analisis multivariat dapat disimpulkan bahwa ibu rumah tangga berusia 20-45 tahun yang tinggal di rumah dengan konsentrasi PM2,5 tidak memenuhi syarat berisiko 2,4 kali lebih besar mengalami penurunan fungsi paru dibandingkan ibu rumah tangga yang tinggal di dalam rumah dengan
konsentrasi PM2,5 memenuhi syarat setelah dikontrol variabel ventilasi dan pajanan asap rokok. Analisis spasial menunjukkan RW 5 dan RW 8 Desa Sukadanau, Kecamatan Cikarang Barat merupakan wilayah RW dengan zona prioritas untuk dilakukan intervensi kesehatan.
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ABSTRACT
Fine particles more dangerous because they penetrate more deeply into the lung and may reach the alveolar region and reduce lung function. The aim of this study was to analys spatially association between indoor fine particles and lung function levels among housewife around steel industry. A cross sectional design study combine with geographical epidemiology of 125 houses that the unit analysis were 125 housewives from 20 to 45 years. The results showed that there were 58,4% housewives had decline lung function. Multivariate analysis concluded that housewives aged 20-45 years with indoor fine particles (PM2,5) inadequate 2.4 times risk higher to reduced lung function than adequate indoor fine particles after controlled by ventilation and tobacco smoke exposure. Spatial analysis concluded that RW 5 and RW 8 Sukadanau, West Cikarang were in priority zone with very high risk area.;Fine particles more dangerous because they penetrate more deeply into the lung
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